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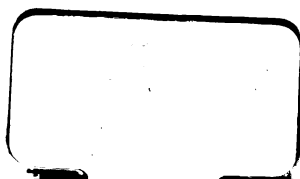
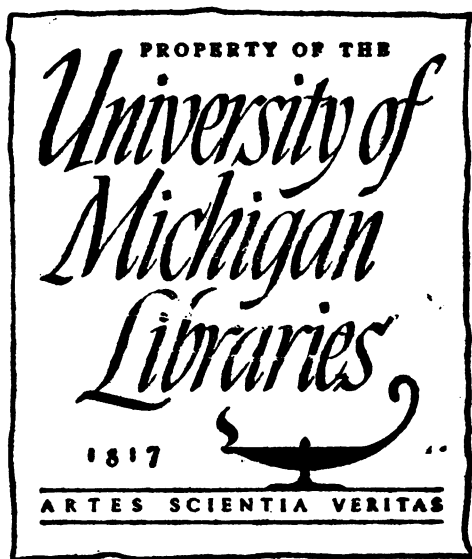
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FLORA DIÆTETICA.

OR,
HISTORY
OF
ESCULENT PLANTS,
Both DOMESTIC and FOREIGN.

IN WHICH
They are accurately described, and reduced to their
LINNÆAN Generic and Specific Names.

WITH
Their ENGLISH NAMES annexed, and ranged under
Eleven GENERAL HEADS,

VIZ.

- | | | | |
|----------|---|----|---------------------|
| ESCULENT | { | 1 | ROOTS, |
| | | 2 | SHOOTS, STALKS, &c. |
| | | 3 | LEAVES, |
| | | 4 | FLOWERS, |
| | | 5 | BERRIES, |
| | | 6 | STONE-FRUIT, |
| | | 7 | APPLES, |
| | | 8 | LEGUMENS, |
| | | 9 | GRAIN, |
| | | 10 | NUTS, |
| | | 11 | FUNGUSES. |

AND

A particular Account of the Manner of using them ; their
native Places of Growth ; their several Varieties, and
Physical Properties : Together with whatever is other-
wise curious, or very remarkable in each Species.

THE WHOLE
So methodized, as to form a short INTRODUCTION to the
SCIENCE OF BOTANY.

By **CHARLES BRYANT**, of *Norwich*.

L O N D O N :
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TO
JAMES CROWE, Esq;
OF
TUCK'S WOOD, NEAR NORWICH,
THIS HISTORY
OF
ESCULENT PLANTS

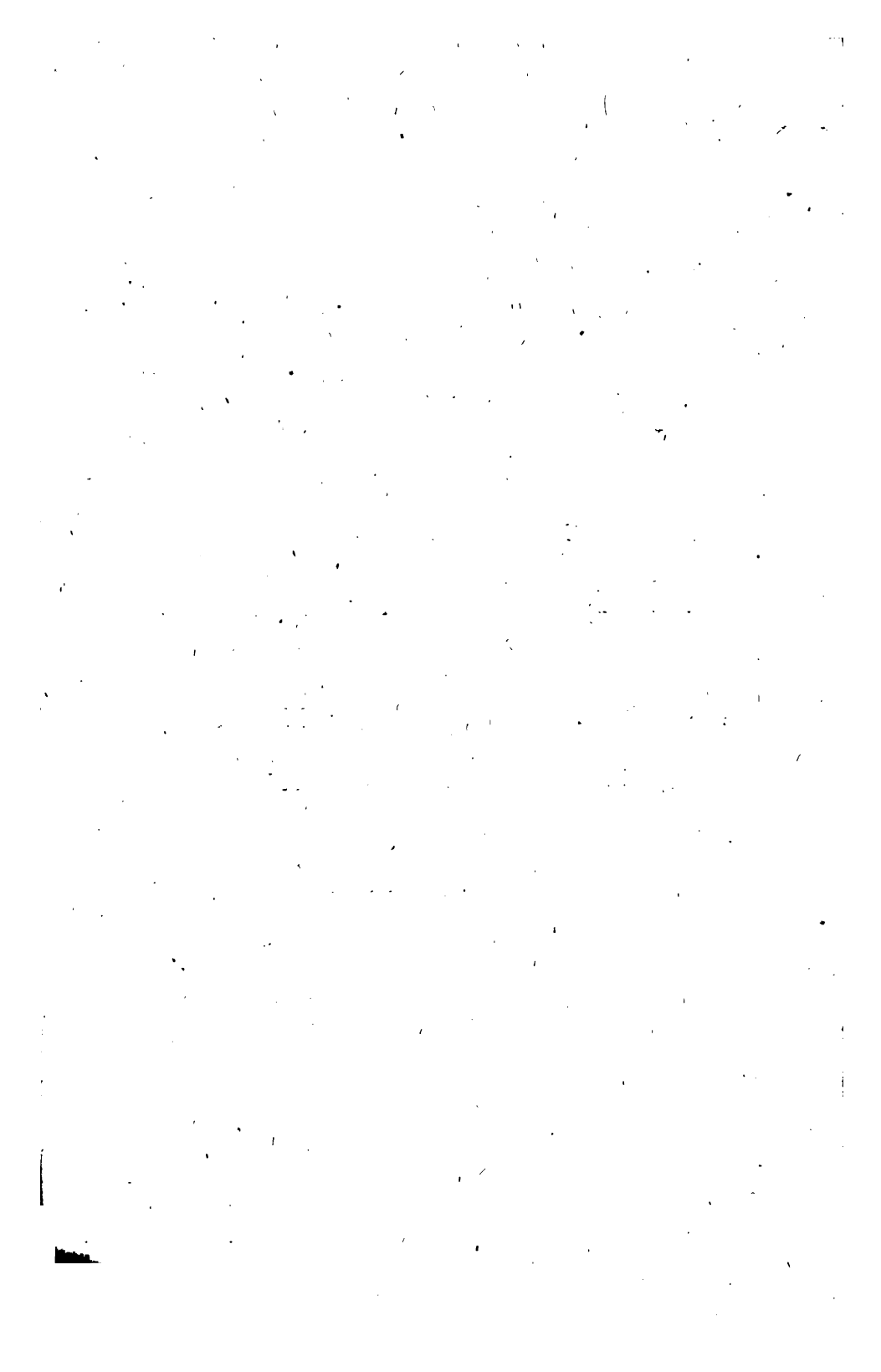
Is, with all due Submission, Inscribed,

BY

His most Obedient

Humble Servant,

C. BRYANT.



Gift
Parke Davis & Co
8-7-1934

P R E F A C E.

WHETHER we view Mankind in a natural or civilized state, we shall find that the principal part of his daily food, and also most of the articles necessary to his comfortable enjoyment of Life, are drawn from the vegetable kingdom; every endeavour therefore to point out with precision and accuracy the Species of Plants, immediately adapted to the use of man, must carry with it its own recommendation; for, by furnishing him with the means of distinguishing the different Species of plants clearly, he is thereby enabled to choose such as are most wholesome, and best suited to his palate and constitution, and of rejecting such as are disagreeable and hurtful. Now this can never be answered by any method so well, as

by that of calling plants after their generic and trivial Names, for these once acquired, any particular Species may be as certainly discoursed upon, as any single letter in the Alphabet. By these, Botany is reduced to a permanent and universal language, which may be adopted by all people and nations ; but without these, the most laboured descriptions often prove ineffectual, and the meaning liable to be mistaken. The truth of this is evident from the writings of many travellers, who have endeavoured to describe the plants peculiar to the several countries they have passed through ; but though they have taken much pains to be understood, yet it is frequently out of the power of the most expert Botanist, to be certain of many plants they mention, for want of their descriptions being delivered according to the language of Botany ; or, if the plants were such
as

as are in Linnæus, their not speaking of them by their generic and trivial names. These names would be all the descriptions necessary to a scientific Botanist, and this method would save such travellers a great deal of time, but for want of proceeding in this way, their labours become almost useless, and the œconomy of human life is often robbed of many advantages. Hence, amongst other instances, Botany becomes a science of the first consequence, and claims the most liberal encouragement, as when it is properly understood and applied, it may be productive of the greatest benefits to mankind. All Gentlemen then that travel with the public good in view, should previously acquire such a stock of the Linnæan system as will enable them to reduce plants to their Genera and Species. Nor is a competent knowledge of this Science less necessary to the stationed

Gentleman; for surely it ill suits with the character of a person of a polite education, to adopt the vulgarisms of the unlearned. And yet for the most part this is the case, there being nothing more frequent than for people in a high station of life, to converse about their fruits and fallads, under the barbarous names they may have heard them called by, and which are often local. Gardeners and Nurserymen too ought to be well acquainted with the Linnæan names of the plants they cultivate and deal in, the want of which knowledge many times renders their language unintelligible even among themselves, especially if they have been brought up in different places. The utility of the following Manual then must immediately appear, as by it any one may furnish himself with the Linnæan names of most of the esculent plants in use throughout the known parts

parts of the globe, and that with very little trouble; for it being portable in the pocket, and sufficient in itself for the purpose, Gentlemen and Ladies not at all acquainted with Botany, may amuse themselves in their gardens, and examine the greatest part of their vegetables scientifically, without the fatigue of regularly studying the Science, as all such terms as were unavoidable in true description, are explained at the beginning of the work. Under this view, likewise, it must become directly useful to those who travel, as they will be hereby enabled to satisfy themselves in regard to the edible plants they may meet with abroad, and in their writings be capable of giving the country names in conjunction with the true botanical ones, a thing of no small consequence in History.

Some time past, Mr. Hugh Rose, Apothecary of Norwich, for his
own

own information, set himself about collecting the Linnæan names of the *Esculent Plants*; his list coming into my hands, I made as many additions to it as I could, have described all the plants, except such as are generally known; and have digested and divided the whole into eleven general Heads, with Subdivisions of them, that the descriptions of the plants might immediately follow every small parcel of names. These descriptions I have delivered in as plain and simple language as possible, being sensible, that a work chiefly intended to bring into general use the scientific names of a particular set of plants only, could not be expressed in too familiar a style. I have likewise aimed at brevity, as well as plainness, not unfrequently making one plant subservient to the description of another, by only contrasting their difference. As to such Exotics as could not come under my inspection,

inspection, I have deliberately consulted the best botanic writers upon them, and by comparing their several descriptions, have formed such as I hope will be found to give the most accurate ideas of the plants described. Knowing also, that many readers are very solicitous about the virtues of plants, I have added the most general physical properties of the greatest part of these, as far as could, with propriety, be deduced from their material compositions, and perceivable effects upon the organs of sensation.

Having pointed out the principal design, it remains to mention but one circumstance more respecting the succeeding pages; which is, that several plants inserted there were never yet generally introduced into the kitchen, but all of them have been privately tried, and found to be equal, nay even to surpass many, whose uses have been long established.

ed. This must prove of public advantage, in particular seasons, as out of such a number, if some should fail, others will be in perfection; and surely no one will object to increasing the Esculent Plants, from an opinion of its tending to promote luxury, especially if he reflect that human health and vigour can never be supported so well, as by a frequent use of vegetable diet, and that by having a great variety to choose from, both the palates and pockets of different people will be the more agreeably accommodated.

TERMS

TERMS EXPLAINED.

AS it was impossible to deliver a work of this kind, with any tolerable propriety, without making use of some of the terms peculiar to the science, it will be necessary for such readers as may be entire strangers to Botany, to get a perfect idea of the few general ones following, before they consult the descriptions of the plants, otherwise they will not be able clearly to comprehend them, as these words are constantly occurring.

1 Annual.	15 Calyx.
2 Biennial.	16 Catkin.
3 Perennial.	17 Petal.
4 Sessile.	18 Glume.
5 Serrated.	19 Arista, or Awn.
6 Crenated.	20 Floret.
7 Pinnated, or winged.	21 Germen, or Seed-bud.
8 Peduncle.	22 Pericarpium.
9 Spike.	23 Capsule.
10 Spicula.	24 Stamina.
11 Panicle.	25 Styles.
12 Spadix.	26 Stigma.
13 Racemus.	27 Summit.
14 Umbel.	

1 A plant is said to be *Annual* when it dies, root and branch, in the course of the year in which it vegetated; as Common Barley.

2 A *Biennial* plant is that which totally perishes the second year after it vegetated; as Garden Clary.

xiv TERMS EXPLAINED.

3 A *Perennial* plant is such whose root continues alive in the ground for many years; as several sorts of Mint.

4 A leaf or flower is said to be *Sessile* when it has no foot-stalk; as the leaf and flower of the Garden Purslane.

5 A *Serrated* leaf is such as hath its margin cut into teeth like those upon the edge of a saw; as in the Rose leaf.

6 A leaf is said to be *crenated* when its margin is cut into semicircular teeth; as the leaf of Ground Ivy.

7 A *pinnated* or *winged* leaf hath several lesser leaves placed on each side a common foot-stalk; as the leaf of the Ash.

8 A *Peduncle* is the stalk that supports a flower, and is so called to distinguish it from the stalk that sustains a leaf.

9 A *Spike* is formed by many sessile flowers standing on both, or on all sides a common peduncle*; as a spike of Lavender.

10 A *Spicula* is a partial spike; in Wheat, the main spike is composed of a number of spiculæ.

11 A *Panicle* is formed by the flowers being variously branched from the extremity of a common stem, upon separate peduncles; as in the Oat.

12 A *Spadix* is a flower-stem that is protruded out of a sheath; as that of the Common Arum.

13 A *Racemus* is a long bunch of flowers, each

* This sort of peduncle Linnæus more properly calls a *Receptacle*.

TERMS EXPLAINED. xv

of which is supported on a distinct peduncle, which springs from the side of a common peduncle; as in the Currants.

14 An *Umbel* is a bunch of flowers, in which many common peduncles, rising to an equal height, proceed from a point at the extremity of a stem, and support the flowers in small clusters; as in Common Parsley.

15 A *Calyx* is the leaf or leaves that enclose and protect the other parts of a flower before they expand.

16 A *Catkin* is a sort of compound calyx, consisting of a great many scales, ranged along a common receptacle, and has obtained its name from its resembling a cats-tail; as in the Willow.

17 The *Petal* or *Petals* of a flower, are the leaf or leaves placed within the calyx, and are of various shapes and colours, according to the nature of the plant.

18 *Glume* * is a term which ought to be applied only to grass-leaved plants, and should be confined to point out the chaffy leaf that immediately surrounds the seed.

19 An *Arista* or *Awon*, is a sort of beard that springs from some part of a husk or seed of the grass-leaved plants; as the beard of Barley.

20 A *Floret* is a partial flower; a compleat

* *Gluma*, a *husk*, has not hitherto had any definite meaning in Botany, which has caused some confusion even in the works of Linnæus; for in describing the grass-leaved plants, he sometimes uses it for the calyx, and sometimes for the petals, or chaff that surround the seed, whereby it is not always possible to understand his meaning. The propriety of confining it to the petals therefore must immediately appear.

flower

xvi TERMS EXPLAINED.

flower of the Dandelion is composed of a number of florets.

21 The *Germen* is the rudiment of the fruit, or seed-vessel.

22 A *Pericarpium* is a seed-vessel arrived at maturity.

23 A *Capsule* is a dry hollow seed-vessel, that cleaves or splits in some certain manner; as a Poppy-head.

24 The *Stamina* are the little threads standing within the petals, and are called the male organs of generation.

25 The *Styles* are small pillars, mostly placed in the centre of the stamina, and are the female organs of generation.

26 The *Stigma* is the top of the style, and is variously formed.

27 The *Summits* are the tops of the stamina.

HISTORY

HISTORY

OF

ESCULENT PLANTS.

CHAPTER I.

ESCULENT ROOTS.

SECTION I.

Roots now or formerly made use of as Bread.

- 1 **A** RUM colocasia. *Egyptian Arum*
or *Colocasia*.
- 2 Arum esculentum. *Eatable Arum.*
- 3 Arum peregrinum. *Edders.*
- 4 Calla palustris. *Water Dragons.*
- 5 Convolvulus batatas. *Spanish Potatoes.*
- 6 Dioscorea fativa.
- 7 Dioscorea alata. } *Indian Yams.*
- 8 Dioscorea bulbifera. }
- 9 Jatropha maniot. *Cassava or Indian*
Bread.
- 10 Nymphæa lotus. *Egyptian Lotus.*
- 11 Sagittaria sagittifolia. *Common Arrow-*
head.
- 12 Solanum tuberosum. *Common Potatoes.*
- 13 Yucca gloriosa. *Adam's Needle.*

B

14 Polygonum

14 *Polygonum divaricatum*. *Eastern Buck-wheat*.

1 *ARUM colocasia*. *Lin. Sp. pl.* 1368.

Arum maximum Egyptium, quod vulgo *Colocasia*. *Baub. Pin.* 195.

Great has been the controversy amongst ancient Botanists concerning this plant; some insisting that it was the *Faba Egyptia* of Dioscorides and Theophrastus, and others denying it, contending with good reason that it was the seed of the *Faba Egyptia* that was eaten, and not the root. This plant no doubt is the true *Colocasia* of the ancients, and the same which is mentioned by Virgil in his Eclogues *. It grows in Crete, Cyprus, Syria, and Egypt, propagating itself chiefly by its roots; for it flowers so late, that it can perfect its seeds only in particular seasons. This last circumstance induced many travellers to believe it was not natural to these parts, but had been introduced there, and was the means of leading them into mistakes about the plant, the general habit of which somewhat agreeing with that of the *Faba Egyptia*, and some asserting that the root of the latter was eaten, they implicitly pronounced the former to be the *Faba Egyptia*, the root of which had been affirmed by some to be the true *Colocasia*.

Dr. Hasselquist met with the *Arum colocasia* both in the fields and gardens of Egypt.

* Eclog. iv. v. 20.

It hath a large tuberous root covered with a brownish skin, but when cut is white within, and of a sharpish acrid taste.

The leaves come immediately from the root on long, thick footstalks; they are large, and somewhat of the shape of those of the Butter bur, of a dark shining green colour, and have their footstalk inserted near their centre.

Among the leaves rises the flower-stalk, which is round, of a pale green, and terminated by a large sheath including a pestle, or clapper, like that of our Wake-Robin, but longer, thinner, and set round at the bottom with red berries.

The roots of most of the species of this genus are intolerably acrimonious, but this is of a milder nature, and much esteemed by the inhabitants of the East for its nutritious quality. What pungency it has is taken out by soaking it in water for some hours, after which, it is dried and is then fit for table. Sometimes, however, they are boiled or roasted, and eaten as potatoes. A root or two of *Colocasia* with a glass of good wine is a pleasant regale.

2 ARUM esculentum. *Eatable Arum.*
Lin. Sp. pl. 1369.

Arum minus, nymphææfolio, esculentum.
Sloan. Jam. 62.

This is a native of America. It is a much smaller plant than the former, and

has leaves resembling our Water Lily. The inhabitants of the sugar islands cultivate it in plenty, as food for their slaves. It has a mild root, and not only this is eaten, but the leaves also, which are a favourite salad among the Indians, and on that account they are called Indian Kale. This circumstance probably induced Linnæus to give it the trivial name of *esculentum*, the better to distinguish it from those *Arums*, whose roots only are eaten.

3 *ARUM peregrinum*. *Edders*. *Lin. Sp. pl.* 1369.

This is likewise a native of America, and is cultivated for the roots in the same manner as that just mentioned. It differs from the *esculentum*, in having leaves between the form of an heart and that of a spear. The roots of both the species are eaten the same as are potatoes with us, and the Edders are very pleasant.

There are some others of this genus, whose roots are esculent, as those of the *sagittifolium*, but they are not so generally cultivated.

4 *CALLA palustris*. *Water Dragons*. *Lin. Sp. Pl.* 1373.

Dracunculus aquatilis. *Dod. plant.* 330.

The roots of this are said to be eaten, but in what manner I cannot learn. It is a native

tive of the northern parts of Europe, and grows in the marshes. The root is thick, fleshy, and jointed. It creeps in the mud, and sends up in clusters many fistulous stalks, supporting heart-shaped, deep green leaves. The flower-stems rise in the midst of the tufts of leaves, to about eight inches high; they are round, thick, of a pale green, and are surrounded by the bases of the leaves. Each stem terminates with a light green, plain spatha, which is snipped at its base, and includes a club-shaped spadix, surrounded with hermaphrodite, whitish, chivy flowers, having neither calyx, nor petals, but are succeeded by red globular berries, standing round the spadix, as they do in common Arum. The spatha is permanent, and remains with the fruit.

5 CONVULVULUS batatas. *Spanish Potatoes.* Lin. Sp. pl. 220.

Convolvulus indicus vulgo Patates dictum: Raii Hist. 728.

The *Batatas* is a native of both Indies, but has been a long time cultivated in Spain and Portugal, whence the roots are annually imported.

It puts forth many long, trailing stalks, which are very rough, and as they run on the ground they strike fibres, and produce large, irregular, tuberous roots. The stalks are furnished with almost spear-shaped

leaves, of a dark green colour, with five prominent veins running through each. The flowers are produced at the bosoms of the leaves, on long peduncles; they are bell-shaped, spread open at the top, and contain five stamina and one style each, crowned with a forked stigma.

The root is firm, of a pale brown on the outside, white within, very sweet, and is the only one at present known, in all this copious genus, to be esculent, those of the rest of the species being either very pungent or violently cathartick. It is a plant that well repays the time and labour of the cultivators, for one bushel of the roots generally yields fifty; but we cannot reap this benefit, as our climate is not warm enough to produce the plant to perfection.

These are certainly the same species of roots as those which Columbus's sailors were treated with by the inhabitants of Cuba, and which they said were very sweet, and when boiled tasted like chesnuts.

6 DIOSCOREA fativa. *Rams. Lin. Sp. pl.* 1463.

Volubilis nigra, folio cordato nervoso, *Sloane Jam. 46. Hist. I. p. 140.*

This is a native of both the Indies, and is cultivated in all the sugar islands in the West, where the roots are the principal food of the Negroes.

It

It sends forth many weak, smooth, slender stalks, which fix themselves to any support near them, in the manner of our Briony, some of them running to the length of twenty feet; they are blackish, are furnished with heart-shaped leaves, ending in acute points, and each has five longitudinal veins, which take their rise at the base, and diverge towards the sides, but meet again at the apex. The flowers come out in a racemus at the footstalks of the leaves; they have no petals, but consist of a small calyx cut into six parts, and are male and female in distinct plants. The male flower has six hairy stamina, and the female a three cornered germen, crowned with three styles, and becomes a capsule of three cells, each containing two membranous seeds.

7 DIOSCOREA alata. *Rams. Lin. Sp. pl.* 1462.

Volubilis rubra; caule membranulis extantibus alato, folio cordato nervoso. *Sloan. Jam.* 46. *Hist. I. p.* 140.

This too grows spontaneously in both the Indies, and is cultivated in manner of the former. It differs from the *sativa* in being a smaller plant, in the stalks being red, triangular, and winged, and sometimes putting out bulbs at their joints, as they trail on the ground.

8 DIOSCOREA bulbifera. *Yams. Lin. Sp. pl.* 1463.

Rhizophora Zeylanica, scammonii folio singulari, radice rotunda. *Herm. Par.* 217. t. 217.

This differs from both the former in the roots being rounder. Its leaves resemble those of Scammony in their shape, but they are warted.

The roots of all these three species are promiscuously eaten, by the name of *Yams*; they differ greatly in colour, size, and shape; some being blueish, some brownish; and as to shape, some are round, others irregularly oblong. With respect to size, they weigh from a pound to ten and upwards. They are of a very nutritious nature, easy to digest, and when dressed, are preferred to the best wheaten bread. The taste is somewhat like the potatoe, but more luscious. For negroe food they are generally boiled, and then beaten into a mash. The white people grind them to flour, and make bread and puddings of them. In order to have the benefit of them the year through, upon digging them up, they are exposed in the sun to dry, in the manner of our onions, and when sufficiently weathered, they are preserved in dry sand, garrets, or casks, and if kept from moisture, will continue several seasons, and lose nothing of their primitive goodness.

9 JATROPHA maniot, *Cassava*. Lin.
Sp. pl. 1429.

Arbor succo venenato, radice esculenta.
Baub. Pin. 512.

The *Cassava* is a native of the warmer parts of America. It is a shrubby plant, sending up several stalks seven or eight feet high, which are covered with a thin bark, of different hues, according to the age of the stems, it being grey, red, or blue. The stalks and branches are furnished with smooth, hand-shaped leaves, consisting of five or seven lance-shaped lobes each. The flowers come out in bunches at the tops of the stalks, some being male and others female. The male has no calyx, but is composed of a bell-shaped petal, containing ten stamina, forming a column. The female also has no calyx, and consists of five whitish petals, surrounding three bifid styles, and is succeeded by a capsule of three cells, containing one seed each. The principal root is about half a yard long, and two or three inches thick; almost cylindrical, red or greyish on the outside, white within, of a farinaceous substance, mixed with a milky juice, and every part of it is a fatal poison when raw; but notwithstanding this, these roots furnish a very great part of the daily food of the inhabitants of all denominations in the West Indies.

When these roots are full grown and fit for use, it requires no great labour to get them

them up, for they do not penetrate far into the ground, and therefore the method used by the negroes, is, to pluck up the whole tree, roots and all, and if any of the offsets chance to separate, which is sometimes the case, they draw these up with a hoe. In order to prepare them for food, they pare off the outer bark with a coarse knife; then the roots are rubbed on large copper graters to reduce them to meal, which much resembles the sawings of some white grained wood. When a sufficient quantity of meal is obtained, it is put into a press, and the watery part squeezed from it, and carefully set by in vessels kept at hand for the purpose. The substantial part is then taken from the press, and if immediately wanted for bread, it is made into cakes, and baked upon iron plates over a slow fire, till they become brown; after which they will keep sweet for several months. The plates are about two feet broad, and half an inch thick, and are placed either upon stones, or an iron trivet. A fire is made underneath, and when the iron is properly heated, which they try by touching it with their fingers, they lay the meal on equally over the whole plate, till they have covered it about two inches thick. As it roasts, the person that attends it, gently passes a smooth piece of wood over the surface, which causes the mass to incorporate and subside, till it becomes not above the eighth of an inch thick.

When

When baked enough, it is taken off, and laid a few hours in the sun, that if any moisture yet remains, it may be dissipated, and thereby prevent the cake from contracting a mould. This bread is easy to digest, very nourishing, though but coarse in the mouth. A piece of it dipped in water or other liquor, will soon swell to several times the thickness it was before it was put in. When *Cassava* is intended to be laid up as a stock to have recourse to occasionally, or for the convenience of packing it up to send about the country, it is then cured in the following manner: They put a parcel of the meal into a pan over a slow fire, and to prevent it from burning, or sticking to the pan, they continue stirring it about with a wooden instrument made for that purpose. By this operation it is brought into granules, and when dry enough, it is taken out and laid by in some convenient place, and by now and then exposing it to the sun, or the warmth of a stove, it may be preserved sweet for several years. Whatever offal may happen to be made in any preparation of the root, is carefully saved, and dried in a stove. This is often used to thicken their soups; but more generally, it is afterwards roasted very brown, and being fermented with the roasted roots of the *Convolvulus batatas* and melasses, an inebriating liquor, called *ouycou*, is prepared from it, and is a favourite drink of the natives,

tives, and with which they mostly get intolerably intoxicated at their feasts and public entertainments. No part of this extraordinary root is wasted, for the juice, though a perfect poison crude, is boiled up with meat, pepper, and other spices, as occasion requires, into a most agreeable and wholesome soup; and they are very careful to preserve it for this purpose. Sometimes, however, their hogs and poultry find means to get at it, and drink it, which is instant death to them; yet the creatures so poisoned, are eaten with the same safety and unconcern, as if they had been properly butchered.

Dr. Bancroft mentions another sort of *Cassava* used by the Indians, which he calls the sweet *Cassava*, and they *Cañanioc*, and says it differs little from the former, but in that it is not poisonous. This possibly may be the root of a species of this genus, but it certainly can never be a variety of the same plant. Notwithstanding its innocent quality, its roots are not regarded by the natives as equal to the others, they yielding less meal in proportion to their size, and that more spongy and less nutritive.

10 NYMPHÆA lotus. *Egyptian Lotus*.
Lin. Sp. pl. 729.

Nymphæa foliis amplioribus profundè crenatis subtus areolatis. *Brown. Jam.* 343.

This is an aquatich plant, and a native of
both

both the Indies. It sends up several large leaves, standing singly on long footstalks; these are heart-shaped, deeply cut at their base, of a light green colour, and sharply dentated on their edges. The flower-stalks come immediately from the root; they are long, and each is terminated by one large, white double flower, of an agreeable smell, and like that of our white Water Lily, but it is not quite so full of petals. The calyx consists of four permanent leaves, in the centre of which is placed the germen; this turns to a bottle-shaped seed-vessel, of many cells, containing roundish seeds.

The root is conical, firm, about the size of a middling Pear, covered with a blackish bark, and set round with fibres. It has a sweetish taste, and when boiled or roasted, becomes as yellow within as the yolk of an Egg. The plant grows in abundance on the banks of the Nile, and is there much sought after by the poor people, who in a short space of time collect enough to supply their families with food for several days.

II SAGITTARIA sagittifolia. *Common Arrowhead. Lin. Sp. pl. 1410.*

Sagitta aquatica minor latifolia. *Baub. Pin. 194.*

This plant grows common in rivulets and water ditches, and often varies much in the size and form of its leaves. Osbeck, in his Voyage to China, says he saw *Sagittaria bulbis*

bulbis oblongis cultivated in the same field with *Rice* and *Nymphæa Nelumbo*; it resembled the European *Sagittaria*, but was larger, which might be owing to the culture: the roots of the Chinese sort are the size of a clenched fist, and are oblong, and the Swedish are round, and not much larger than peas. We change the quality of the ground, he remarks, by draining the water, and other arts, till we make it agreeable to our few sorts of corn; but the Chinese make use of so many plants for their subsistence, that they can scarce have any sort of ground, but what will fit some one of them. Thus they do not improve the field for the seed, but chuse the seed for the field.

The *Sagittifolia* sends down into the mud many long, slender, brittle fibres, with a bulb suspended at the end of each, which in August is about the size of an Acorn, and of a fine blue colour, streaked with yellow. The inside is white, firm, of a farinaceous taste, but a little muddy. From the crown of this bunch of fibres, shoot many long, spongy stalks, supporting large arrow-shaped leaves, of a fine green colour, and glossy surface. Amidst these rise the flower-stems, higher than the leaves, sustaining at their joints three or four white flowers, on long peduncles, each consisting of three roundish petals, which spread open. The uppermost flowers are all male, with many awl-shaped

shaped stamina; the lower ones all female, with petals like the male, surrounding many compressed seed-buds, collected in a head, having very short styles, with acute stigmata. These flowers are succeeded by rough heads, containing many small seeds.

I cured some of the bulbs of this plant, in the same manner that Saloop is cured, when they acquired a sort of pellucidness; and on boiling them afterwards they broke into a glutinous meal, and tasted like old peas boiled.

12. *SOLANUM tuberosum.* *Common Potatoes.* *Lin. Sp. pl. 265.*

Solanum tuberosum esculentum. *Baub. Pin. 167.*

The common *Potatoe* is a native of Peru, in South America. It has been introduced into England about a century and half, but was amongst us a long time before much attention was paid to it, nor did it come into use in the families of the higher class of people, till within a few years past. The Irish seem to have been the first general cultivators of it in the western parts of Europe, and it is so extended now as to form a principal part of the winter food, both of the Irish and English. There are two sorts, the red and the white roots, which are only seminal variations; and there are also several varieties of these. *Potatoes* abound with an

insipid, phlegmatic juice, which induces many to think they are not nutritious; and indeed such sorts as break into a watery meal in the boiling, can afford but very little nourishment, as they are always found to prove very diuretick, and greatly to increase the quantity of urine. On the contrary, those kinds which cut firm when thoroughly boiled, especially the white sorts, must be nutritive, as they contain a more mucilaginous juice, than those that easily break, which thickening in the boiling, is the occasion of the parts cohering. Of equal quantities of the powder of Potatoes and the flour of Wheat, a good sort of bread may be made; and starch and hair powder may also be obtained from these roots.

13 *YUCCA gloriosa* *. *Adam's Needle.*
Lin. Sp. pl. 456.

Cordylina foliis pungentibus integerri-
mis. Roy. Lugd. Bat. 22.

This is a native of the same place as the former. There are several species of the genus, all natives of America, but most of them are to be met with in the gardens and green-houses of the curious in England. The *Gloriosa* differs from the rest, in having

* The plant that flowered at Costesey, near Norwich, in 1782, and which was affirmed to be the *Succotrine Aloe*, was only one of this species; but it was a very strong plant, and the stem rose to above six feet high.

the margins of its leaves entire. In old plants the leaves are about eighteen inches long, and two broad, of a dark green colour, and each ends in a sharp stiff spine. They are thickly set round the bottom of the stem to a span or more upward, whence issues a round, rigid, purplish-green stalk, to the height of three feet or more, and which is set round with branches to the very top. At the base of each branch stands a small red leaf, with a green apex. The branches are sparingly set with bell-shaped flowers, which hang downwards; they are white, with purplish stripes on the outside, and consist of six petals each, joined together by their bases. In the center of the flower are six short, reflexed stamina, and an oblong, three cornered germen, which becomes an angular capsule, of three cells, filled with compressed seeds.

The root is thick and tuberous, and is used by the Indians for bread, being first reduced into a coarse meal; but this is only in times of scarcity, and when more grateful roots fail them. In like cases the people of England have been glad to support life with the roots of the *Spiraea filipendula*, (Dropwort) the *Scirpus maritimus*, (Bastard Cyperus) and even with those of the *Triticum repens*, (Dogs-grass) and also of those of the Common Brake, or Fern.

14 POLYGONUM divaricatum. *Eastern Buckwheat. Lin. pl. 520.*

Perficaria alpina, folio nigricante, floribus albis. All. Pedem. 41. t. 8.

This grows in Siberia and the Island of Corfica, in the Mediterranean. 'Tis a perennial plant, with a creeping root, composed of many tough fibres. The stalk rises near half a yard high, breaking into many spreading branches, which are mostly bent at their joints, and are furnished with narrow, smooth, light green, spear-shaped leaves, ending in an acute point. The flowers are produced in loose spikes at the ends of the branches; they have no calyx, are small and white, consist of one petal each, cut at the brim into five spreading segments, and contain eight stamina and three styles. When the flower fades the petal enwraps a roundish, sharp-pointed seed.

The roots (reduced into coarse meal) are the ordinary food of the Siberians, as they are also of the mountain-rats. These animals are provident enough in the winter to lay up a proper store for the summer, which being known to the natives, and they being too indolent to dig for them, ramble in quest of the rats, granaries, and having hit upon them, make no scruple to carry away the produce of all their industry.

S E C T. II.

Roots occasionally eaten as Condiments, or for other Family Purposes.

- 1 **A**MOMUM zingiber. *Common Ginger.*
- 2 Allium cepa. *Common Onion.*
- 3 Allium ascalonicum. *Shallot, or Escalot.*
- 4 Allium scorodoprasum. *Rokambole.*
- 5 Apium petroselinum. *Common Parsley.*
——— *latifolium.* *Large-rooted Parsley.*
- 6 Bunium bulbocastanum. *Earth-nut, or Pig-nut.*
- 7 Beta rubra. *Red Beet.*
- 8 Brassica rapa. *Common Turnep.*
——— *rapa punicea.* *Purple-rooted Turnep.*
——— *rapa flavesces.* *Yellow-rooted Turnep.*
——— *rapa oblonga.* *Long-rooted Turnep.*
- 9 Campanula rapunculus. *Rampion.*
- 10 Cochlearia armoracia. *Horse Radish.*
- 11 Carum carui. *Caraway.*
- 12 Cyperus esculentus. *Rush-nut.*
- 13 Daucus carota. *Wild Carrot.*
- 14 Eryngium maritimum. *Sea Holly.*

- 15 *Guilandina moringa*. *Ceylon Guilandina*.
- 16 *Helianthus tuberosus*. *Jerusalem Artichoke*.
- 17 *Ixia chinensis*. *Spotted Ixia*.
- 18 *Ixia crocata*. *Greater African Ixia*.
- 19 *Ixia bulbifera*. *Bulb-bearing Ixia*.
- 20 *Lathyrus tuberosus*. *Peas Earth-nut*.
- 21 *Orobis tuberosus*. *Heath Peas*.
- 22 *Orchis mascula*. *Male Orchis*.
- 23 *Pastinaca sativa*. *The Parsnep*.
- 24 *Raphanus sativus*. *The Radish*.
- 25 *Scorzonera hispanica*. *Viper's Grass*.
- 26 *Sium Sifarum*. *Skirrets*.
- 27 { *Lilium martagon*. *Martagon Lily*.
- { *Tulipa gesneriana*. *Common Tulip*.
- 28 *Tragopogon pratense*. *Yellow Goats-beard*.
- 29 *Tragopogon porrifolium*. *Purple Goats-beard*.

I AMOMUM zingiber. *Common Ginger*.
Lin. Sp. pl. 1. *Zingiber*. *Bauh. Pin.* 35.

This is a native of both the Indies, and furnishes a considerable article of trade to the inhabitants of each. It is a perennial, and the roots spread in the ground in digitated clusters. From these rise several reed-like stalks, near a yard high, having a few narrow, grassy leaves towards their tops. Among these come forth the flower-stems; they are naked all the way up, and terminated

nated by scaly, oval spikes of small blue flowers, consisting of one irregular petal, having a short tube; this is cut into four segments at the brim, and includes one stamen and one style. The germen becomes a three-cornered capsule, containing many seeds.

Ginger is an excellent stomachick, and a powerful expeller of flatulencies. The green fresh root preserved as a sweetmeat, is preferable to any other. The Indians slice the green root among their sallad herbs, in order to render them more grateful to the palate, and make them sit easier on the stomach.

2 ALLIUM cepa. *Common Onion. Lin. Sp. pl.* 431. *Cepa vulgaris. Baub. Pin.* 71.

From whence this was first brought into Europe is not known, but that it is natural to Africa is beyond a doubt, it being evident that *Onions* were eaten by the Egyptians above two thousand years before Christ, and they make a great part of their constant food to this day in Egypt. Dr. Hasselquist says it is not to be wondered at that the Israelites * should long for them, after they had left this place, for whoever has tasted *Onions* in Egypt must allow, that none can be had better in any part of the

* Numbers, chap. xi. ver. 5.

universe: here, he goes on, they are sweet, in other countries they are nauseous and strong; here they are soft, whereas in the north and other parts they are hard, and their coats so compact, that they are difficult to digest. They eat them roasted, cut into four pieces, with some bits of roasted meat, which the Turks call *kebab*; and with this dish they are so delighted, that they wish to enjoy it in Paradise. They likewise make a soup of them in Egypt, which Hasselquist says is one of the best dishes he ever eat. The many ways of dressing *Onions* in England are known to every family, but in regard to wholesomeness, there is certainly no method equal to boiling, as thus they are rendered mild, of easy digestion, and go off without leaving those heats in the stomach and bowels, which they are apt to do any other way. Their nature is to attenuate thick, viscid juices, consequently a plentiful use of them in cold phlegmatick constitutions must prove beneficial. Many people shun them on account of the strong, disagreeable smell they communicate to the breath; this may be remedied by eating a few raw Parsley leaves immediately after, which will effectually overcome the scent of the *Onions*, and cause them to sit more easy on the stomach.

3 *ALLIUM ascalonicum*. *Eschalot*. *Lin. Sp. pl.* 429. *Cepa sterilis*. *Baub. Pin.* 72.

This was found wild in Palestine, by Dr. Hæsselquist. The root is conglobate, consisting of many oblong roots, bound together by thin membranes. Each of these small roots sends forth two or three fistulous, long, awl-shaped leaves, issuing from a sheath, and are nearly like those of the common onion. The flower-stem shoots from a membranaceous sheath, is round, almost naked, and terminated by a globular umbel of flowers, which have erect, purplish, lance-shaped petals, of the length of the stamina.

The root of this species is very pungent, has a strong, but not unpleasant smell, and therefore is generally preferred to the Onion, for making high-flavoured soups and gravies. It is also put into pickles, and in the East-Indies they use an abundance of it for this purpose.

4 *ALLIUM scorodoprasum*. *Rokambole*. *Lin. Sp. pl.* 425.

Allium staminibus alternè trifidis, capite bulbifero, scapo ante maturitatem contorto. Hall. all. 2.

This grows naturally in Denmark and Sweden. It hath a heart-shaped, solid root, which stands side-ways of the stalk. The leaves are broad, and are a little crenated on

their edges. The flowers are of a pale purple colour, and collected into a globular head.

Linnæus makes the *Rokambole*, described above by Haller, to be only a variety of this, and it differs from the original, in having the top of the stalk twisted circularly before the flowers open, and also in the head producing bulbs. The roots are used for the same purposes as those of the former.

X 5 *APIUM petroselinum. Common Parsley.*
Lin. Sp. pl. 379.

Apium hortense, petroselinum vulgo.
Baub. Pin. 153.

The *Common Parsley* is known to every one. There are two varieties of it; the curled and the broad-leaved *Parsley*, the roots of which last are frequently brought to the markets, especially the London ones. This variety has been cultivated in Holland a long time, and the roots are produced there to the size of our summer Carrots, which the gardeners tie up in bunches like Radishes, and send them to market, where they are readily bought by the people, who are very fond of them. They dress them different ways, but the principal use they put them to is to make what they call *Water-Souché*. Parsley roots have a brisk diuretick quality, and therefore are not proper

food for such as have any debility in the urinary passages. The plant is a native of the Island of Sardinia. X

6 BUNIUM bulbocastanum. *Earth Nut.*
Lin. Sp. pl. 349.

Bulbocastanum majus, folio apii. *Baub.*
Pin. 162.

This is a native of our woods and low pastures. The leaves, as to their general form, somewhat resemble those of Parsley, and those which come from the root lay flat on the ground. The stalk rises to about half a yard, is round, channelled, solid; naked below, and divided upwards into many branches, at each of which stands a small leaf, in shape like those at the bottom. The flowers come out at the ends of the branches in umbels; they are white, and consist of five heart-shaped petals each, turning inwards, and surrounding five stamina, with an oblong germen below, which becomes an oval fruit containing two seeds. The roots, which are of a dirty brown colour, and a little bigger than Hazel-nuts, are as pleasant as a Chesnut, whence the name of *Bulbocastanum*. Pigs are exceedingly fond of these roots, therefore they are called Pig-nuts; and indeed nature seems to have intended them for the use of these creatures rather than for man, by reason they cannot be improved by cultivation, as Potatoes

toes and other esculent roots are, for they will not thrive in tilled land. The root has a stiptick quality, and has been deemed serviceable against laxity of the urinary passages.

7 The *Beta rubra*, Red Beet, is only a variety of the *Beta vulgaris*, originally obtained by culture, and now there are some varieties of this; as the common red Beet, the turnep-rooted red Beet, and the greenish-leaved red Beet. This last is the most esteemed sort, the roots being larger and tenderer than the others. All these varieties are well known among gardeners, and the use of their roots among cooks; to describe them farther, therefore, would be useless. They are pleasant enough to the palate, but are said to be prejudicial to the stomach, to afford little nourishment, and on that account are but seldom eaten to what they were formerly.

8 BRASSICA rapa. *Common Turnep*. *Lin. Sp. pl.* 931. *Rapa sativa rotunda. Baub. Pin.* 89. is a native of England, and may be met with wild on the borders of fields. No plant exhibits a more striking instance of the benefits of cultivation than this, for in its wild state it is worth little either to man or beast; but under the management of the husbandman, it not only affords food for the human species, but becomes a most advantageous

vantageous crop to the cultivator, by furnishing the principal winter food for his cattle. The Scotch eat the yellow-rooted turneps, when small, as we do Radishes; and in France and Holland they boil the long-rooted one in most of their stews and gravies.

Turneps are an wholesome aperient food, and the liquor pressed from them when boiled is cooling and diuretick. The Turnep itself, mashed with bread and milk, is an excellent poultice.

9 *CAMPANULA rapunculus*. *Rampion*.
Lin. Sp. pl. 232. *Rapunculus esculentus*.
Baub. Pin. 92.

The *Campanula rapunculus* grows wild in the county of Surrey, and some other parts of England. It is a biennial plant with a carrot-shaped root, which sends forth many elliptical leaves; among these rises a firm, erect, striated stalk, to the height of two feet, furnished with narrower leaves than those from the root, standing irregularly. Towards the top of the stem, and at the bottoms of the leaves, rise several close panicles of blue, bell-shaped flowers, cut into five segments, and containing five stamina and one style each. The whole plant abounds with a lactescent juice. It is much cultivated in France for the roots, which are
 boiled

boiled and eaten as sallads ; but in England it is now little regarded.

10 COCHLEARIA armoracia. *Horſe-radish*.
Lin. Sp. pl. 904. *Raphanus ruſticanus*.
Baub. Pin. 97.

The root of the *Horſe-radish* is perhaps one of the beſt condiments to freſh beef, that the vegetable kingdom is capable of producing ; for by its warmth and activity it promotes digeſtion, and ſtrengthens the tone of the ſtomach. Frequently eaten, or otherwiſe uſed, it ſtimulates the ſolids, attenuates the juices, ſcours the glands, and thereby becomes ſerviceable in ſcurvies, and all diſorders proceeding from a viſcid ſtate of blood. The expreſſed juice put into ſkimmed milk makes an excellent coſmetic. There is a compound water of *Horſe-radish* kept in the ſhops, which is eſteemed a good antiſcorbutic. The plant grows naturally on the banks of rivers and ditches in England, and is too common to need a deſcription.

11 CARUM carui. *Caraway*. *Lin. Sp. pl.* 378.
Carum pratense, Carui officinarum. Baub. Pin. 158.

The *Caraway* is a biennial plant, and grows wild in our meadows and paſtures.
 It

It hath a carrot shaped root, which runs deep in the ground, and which, on being broken, emits a strong aromatic smell. From this comes up two or three solid, channelled stalks, to about two feet high, set with fresh green, winged leaves, on long footstalks, and more finely cut than those of the carrot. The stalks break into branches upward, each of which is terminated by a bunch of small umbels, having white pentapetalous flowers, containing five hairy stamina and one style.

The roots of the cultivated *Caraways* were formerly in great esteem when boiled; how they have fallen into neglect is not easy to guess, as they certainly merit a place at table, as much as some that come there, by reason they have the faculty of warming and comforting a cold weak stomach. The use of the seeds is well known both in the kitchen and shops. There is an essential oil and spirituous water drawn from the seeds, which are excellent Carminatives.

12 CYPERUS esculentus. *Rush Nat. Lin. Sp. pl. 67.*

Cyperus rotundus esculentus angustifolius. Baub. Pin. 14.

This is a native of Italy, and a perennial. Immediately from the root shoot up many long, narrow, grassy, three-square, sharp-pointed leaves, standing almost upright, and
having

having a sharp, longitudinal ridge running down the back of each. Amidst these rise several, smooth, three-square flower-stems, two or three feet high, each terminated by five narrow leaves, spreading horizontally, from the centre of which comes an umbel of flowers, composed of four or five loose kind of panicles or rays, regularly disposed, bearing small, chaffy flowers, closely crowded together on each side the midrib, and having three stamina and one style each.

The root is a collection of long fibres, set at small distances with oval bulbs, which are about the size of nutmegs, of a reddish colour on the outside, white within, firm, and of a more delicate and pleasant taste than a chestnut. These bulbs are greatly esteemed in Italy and some parts of Germany, and are frequently brought to table by way of desert.

13 *DAUCUS carota.* *The Carrot.* *Lin. Sp. pl.* 348.

Pastinaca tenuifolia sylvestris Dioscoridis.
Baub. Pin. 151.

The cultivated *Carrot* is well known to every one, but there are many uninformed of its being only a variety of the *daucus carota*, or wild carrot, so common in our fields and hedges. This, like the Turnep, is worth little in its wild state, its root being small, tough, and stringy; yet when ma-

nured it becomes large, succulent, and of a pleasant flavour. But even in its improved state, unless eaten very young, it is hard of digestion, and consequently lies in the stomach, and breeds flatulencies.

Both flowers and seeds of the wild Carrot were kept in the shops. The latter are a powerful diuretick, and have often been found a sovereign remedy in the jaundice, dropsies and gravel.

14 ERYNGIUM maritimum. *Sea Holly.*
Lin. Sp. pl. 337.

This grows upon the sea coasts in diverse parts of England. It is a perennial, with a long, tough, creeping root, which sends forth several roundish, plicated, bluish, prickly leaves, standing on long footstalks, and mostly lodged on the ground. The stems rise about half a yard high, dividing into many spreading branches, which are set at their joints with leaves like those from the root, but they are smaller, and clasp the stalks with their base. The flowers are produced at the ends of the branches in roundish, prickly heads, the bottoms of which are surrounded with narrow, prickly leaves, ranged in the form of a star. Each flower consists of five small, oblong, light-blue petals, surrounding five slender stamina and one style. The germen becomes
an

an oval fruit, divided into two cells, each containing one oblong seed.

The roots have a pleasant, sweetish taste, mixed with a slight degree of warmth and acrimony. They are candied by the confectioners, and eaten in this manner they are deemed excellent for disorders of the breast and lungs.

15 *GUILANDINA moringa*. *Ceylon Guilandina*: *Lin. Sp. pl.* 546.

Lignum peregrinum aquam cæruleam reddens.¹ *Baub. Pin.* 416.

This grows in Egypt, the Island of Ceylon, and on the coast of Malabar. It is a shrubby tree, and the only one of the genus that has no spines; the others, four in number, being all armed with prickles. This rises with a strong stem, covered with an ash-coloured bark, to near twenty feet. The young branches are covered with a green bark, and set at their base with trifoliate leaves, but upon the branches the leaves are decomposed, breaking into several divisions, which are again divided into smaller ones, having five pair of oval lobes each, and terminated by an odd one. These are of a light-green colour, and a little hoary on their under side. The flowers are produced from the sides of the branches, in loose bunches; they are yellow, composed
of

of an unequal number of petals, some having five and others ten, and stand in a bell-shaped calyx, which is cut at the brim into five equal parts. The stamina are awl-shaped, ten in number, and surround an oblong germen, which becomes a rhomboidal pod, with one cell, including several hard, oval seeds.

The root is thick, full of knobs, and when young, is scraped and used by the inhabitants in the same manner, and for the same purposes, as we do Horse-radish, it having the like pungent taste, as have also the flowers. The wood of this tree dyes a beautiful blue colour.

16 *HELIANTHUS tuberosus.* *Jerusalem Artichoke.* *Lin. Sp. pl.* 1277.

Helenium indicum tuberosum. *Baub. Pin.* 277.

The *Jerusalem Artichoke* is a native of *N. America* (Brazil) but has for ages been cultivated in the English gardens. It is a perennial, and sends up many round, hairy, stiff stalks, eight or ten feet high, which are set with yellowish green, oval heart-shaped leaves, somewhat like those of the common Sun-flower, but narrower. A farther description of it will be needless, it being pretty well known among gardeners; for where it has once been planted, it is no easy matter to root it out again. The roots have some resemblance

semblance to Potatoes, but their taste is more fulsome, and like that of Artichoke bottoms. They abound with a phlegmatic juice, which is apt to generate wind, and cause uneasy griping pains in the bowels. This is the chief reason they are not so much cultivated now as they were formerly.

17 IXIA chinensis. *Spotted Ixia. Lin. Sp. pl. 52.*

Bermudiana iridis folio majori, flore crocèo eleganter punctato. *Krauf. hort. 25. t. 25.*

This is a perennial, and a native of India. It hath a thick, fleshy, jointed root, furnished with fibres. This sends up a smooth, jointed stalk, set with pointed leaves, near a foot long, and an inch broad, with furrows running their whole length, and clasping the stalk with their base. Some way up, the stalk divides into two, and a peduncle shoots from the centre of the partition, supporting one flower; these two branches divaricate again into peduncles, about two inches long, each sustaining a flower as the former. The flower consists of six equal petals, of a deep gold colour on the outside, but of a light yellow within, mixed with red spots; in the centre are three stamina and one inclining style. The germen is oval, three cornered, and stands below

below the flower; this turns to a capsule with three cells, filled with roundish seeds.

The inhabitants where the plant grows naturally, boil the roots, and cut them as we do potatoes.

18 *IXIA crocata.* *Greater African Ixia.*
Lin. Sp. pl. 52.

Ixia foliis gladiatis glabris, floribus corymbosis terminalibus. Mill. ic. 156. f. 1.

This hath a flattish, bulbous root, sending forth three or four thin, narrow, sword-shaped leaves, near a foot long, among which rises the flower-stem just above them. The stem is very slender, naked, and terminated by a spike of yellow flowers, composed of six large, oblong, concave petals, of a glassy hue at their base, where each has a large, blackish spot on the inside.

19 *IXIA bulbifera.* *Bulb-bearing Ixia.*
Lin. Sp. pl. 51.

This from a bulbous root sends forth several narrow, sword-shaped leaves, about half a foot long. Among these rises a jointed stem, to near half a yard, which is furnished with a small leaf at each of its lower joints, clasping the stem with its base, and standing erect. At the bosoms of these leaves bulbs are produced, which if planted will vegetate, and produce complete plants. The flowers come out alter-

nately at the upper part of the stem, which bends at the joints where they spring from; they are composed of six whitish oval petals each, striped with blue on their outsides. The germen supports a long, slender style, crowned with a trifid stigma, and turns to a roundish capsule, having three cells, filled with small roundish seeds.

These two last species are natives of the Cape of Good Hope, where the roots are eaten by the inhabitants, and greatly esteemed. There are several more of this genus, and it is probable the roots of all of them might be used in the same manner.

20 *LATHYRUS tuberosus.* *Peas Earth Nut.* *Lin. Sp. pl.* 1033.

Lathyrus arvensis repens tuberosus. *Baub. Pin.* 344.

In the corn-fields of France and Germany the *Peas Earth Nut* grows naturally, and is a very troublesome weed to the farmers. It is a perennial, and strikes some of its fibres very deep into the earth, whilst others run obliquely near the surface, having thick knobs, or irregular bulbs at their ends. From the crown of the bundle of fibres come several trailing stalks, three or four feet long, and furnished with oval, sessile leaves in pairs, with a clasper between them. The flowers are produced from the arm-pits of the leaves, three or four upon a long

long peduncle; they are of the pea kind, of a light purplish colour, and are succeeded by slender, curved pods, containing small, round seeds.

This plant, though a weed in France, is cultivated in Holland for the roots, which are carried to the markets there for sale. They have an agreeable pleasant taste, much resembling that of the Sweet Chesnut.

21 *OROBUS tuberosus. Heath Peas. Lin. Sp. pl. 1028.*

Astragalus sylvaticus, foliis oblongis glabris. Baub. Pin. 351.

This grows plentifully on the heaths in Scotland, and also on the like places in some parts of the north of England. This too is a perennial plant, having a more woody root than the *Lathyrus* above-mentioned. It sends up a simple stem, about a foot high, furnished with winged leaves, generally composed of two pair of oblong-oval, smooth, sharp-pointed lobes each, and a sort of triangular stipula at the base of the footstalk, which embraces the stem. From the joints of the stem spring the peduncles, each supporting three or four flowers of the pea kind, which turn to a deep purple before they fall.

The roots of this when boiled are said to be nutritious. They are held in great esteem by the Scotch Highlanders, who

chew them as we do Tobacco, and thus often make a meal of them; for being of a sedative nature, they pall the appetite, and allay the sensation of hunger, the same as Tobacco does.

22 ORCHIS mascula. *Male Orchis. Lin. Sp. pl. 1333.*

Orchis foliis sessilibus non maculatis, *Baub. Pin. 82.*

This is very common in our woods, meadows, and pastures, and the powdered roots of it are said to be the Saloop, which is sold in the shops; but the shop roots come from Turkey. The flowers of most of the plants of this genus are indiscriminately called *Cuckoo-flowers* by the country people. Though it has been affirmed that Saloop is the roots of the *mascula* only, yet those of the *morio*, and of some other species of *Orchis*, will do equally as well, as I can affirm from my own experience; consequently to give a description of the *mascula* in particular will be useless. As most country people are acquainted with these plants, by the name of *Cuckoo-flowers*, it certainly would be worth their while to employ their children to collect the roots for sale; and though they may not be quite so large as those that come from abroad, yet they may be equally as good, and as they are exceedingly plentiful, enough might annually

nally be gathered for our own consumption, and thus a new article of employment would be added to the poorer sort of people. The time for taking them up is when the seed is about ripe, as then the new bulbs are fully grown; and all the trouble of preparing them is, to put them fresh taken up into scalding hot water for about half a minute; and on taking them out to rub off the outer skin; which done, they must be laid on tin plates, and set in a pretty fierce oven for eight or ten minutes, according to the size of the roots; after this, they should be removed to the top of the oven, and left there till they are dry enough to pound.

Saloop is a celebrated restorative among the Turks, and with us it stands recommended in consumptions, bilious cholics, and all disorders proceeding from an acrimony in the juices. Some people have a method of candying the roots, and thus prepared they are very pleasant, and may be eaten with good success against coughs and inward soreness.

23 *PASTINACA sativa.* *The Parsnep.*
Lin. Sp. pl. 376.

Pastinaca sylvestris latifolia. *Baub. Pin.*

155.

The *Pastinaca* is found wild upon banks and the mere-balks of fields, and differs from the garden Parsnep only in the size of

its root, and the hairiness of its leaves, the cultivated one having a larger and more fleshy root, and smoother leaves. The roots of the garden Parsnep seem to claim the preference to all other esculent roots, of English growth, they being very agreeable to most palates, easy of digestion, and afford excellent nourishment. In the northern parts of Ireland the poor people obtain a sort of beer from these roots, by mashing and boiling them with hops, and then fermenting the liquor. The seeds of the wild Parsnep are slightly aromatic, and are often kept in the shops.

24. *RAPHANUS sativus. The Radish. Lin. Sp. pl. 935.*

Raphanus minor oblongus. Baub. Pin. 96.

This was originally brought from China, and by cultivation there are now in the gardens here several varieties of it; for besides the long-rooted black Spanish Radish, we have two or more sorts with round roots. Radishes abound with almost an insipid watery juice, which is apt to breed flatulencies. The outer skin has a brisk pungency, and therefore should never be scraped off, as this much corrects the phlegmatic part.

Radishes boiled are scarcely to be excelled by Asparagus. For this purpose they ought to be rather small and fresh drawn, and then dressed in the same manner that Asparagus

is. They are a long time before they become tender; it mostly taking an hour to boil them sufficiently.

25 SCORZONERA hispanica. *Viper's Grass*.
Lin. Sp. pl. 1112.

Scorzonera latifolia sinuata. *Baub. Pin.*
 275.

Spain and Siberia are the native places of the *Viper's Grass*. It is a perennial, and hath a tap-shaped root, about the thickness of one's finger, blackish without, and white within, of a bitterish sub-acrid taste, and abounds with a milky juice, as does the whole plant. The first leaves are large, sinuated on their edges, and end in a long acute point. Among these rises the stem to near three feet. This is smooth, much branched towards the top, and irregularly set with long, narrow leaves, whose base partly embrace it. Each branch of the stem terminates with a long, scaly head, composed of many narrow, tongue-shaped, hermaphrodite florets, laying over each other, and of a bright yellow colour, somewhat resembling the yellow Goat's-beard. The florets are succeeded by oblong, whitish, rough seeds, crowned with feathery down.

The root is not only an article of cookery, but also of confectionary, it being preserved with sugar in the manner of Eryngo.

It

It was formerly a celebrated alexipharmick, and in great esteem for strengthening the stomach, and promoting the fluid secretions. The juice too has been deemed a counter poison to the bite of the Viper, hence the plant obtained the name of *Viper's Grass*.

26 *Sium Sifarum*. *Skirrets*. *Lin. Sp. pl.* 361.

Sifarum germanorum. *Bauh. Pin.* 155.

This is a native of China, but has been a long time cultivated in most parts of Europe, and particularly in Germany. The root is a bunch of fleshy fibres, each of which is about as thick as a finger, but very uneven, covered with a whitish, rough bark, and has a hard core or pith running through the centre. From the crown of this bunch come several winged leaves, consisting of two or three pair of oblong, dentated lobes each, and terminated by an odd one. The stalk rises to about two feet, is set with leaves at the joints, and breaks into branches towards the top, each terminating with an umbel of small white flowers, which are succeeded by striated seeds like those of Parsley.

Skirrets come the nearest to Parsneps of any of the esculent roots, both for flavour and their nutritive quality. They are rather sweeter than the Parsnep, and there-

fore to some few palates are not altogether so agreeable.

It is evident from experiments which have been made on this and some other vegetables, that bounteous nature has not confined sugar to the Indies only, but has liberally blended it in the constitution of many European plants, and which may, by proper management, be extracted from them of equal quality, and perhaps nearly as copiously as from the celebrated Sugar-cane. The ingenious Chymist, M. Margraaf, has given some experiments he made on the roots of the *Beet* and *Skirret*, in order to obtain this valuable commodity from them; and as he found the latter to yield it in the greatest quantity, and by reason too it is a matter both curious and important, I shall here give his process in as concise a manner as the subject will admit.

He took a quantity of fresh *Skirret-roots* well cleaned, and having cut them into small pieces, beat them to a mash in an iron mortar; then tying them up in a linen bag, he committed them to a press, and squeezed them till the juice would run no longer. Water was then poured upon the same mashed roots, and they were put into the press in a bag the second time, and pressed as before: the liquor obtained by these two operations was kept in a cool place for forty eight hours, when it became clear, and had precipi-

precipitated a mealy substance to the bottom of the vessel in which it was contained. Finding the faces thus settled, he poured the clear liquor through a fine linen cloth into a fresh vessel. To this strained liquor he added some whites of eggs, and then boiled the whole together in a copper pan, frequently skimming it, till no faces appeared on the surface, but the liquor became as transparent as the purest clarified wine. It was then again boiled in a smaller pan, till a considerable part was evaporated; and the same operation was continued till the original thin liquor was become of the consistence of common syrup. The boiling being compleated, he set the thickened liquor in a warm place for six months, at the end of which time the sugar was shot in the form of crystals about the sides of the vessel.

To separate and purify this sugar was the next and main operation, and in order to this he immersed the vessel in warm water, thereby to break the tenacity of the liquor, and render it more fluid. This done, he pours the whole into an earthen pot, having a wide mouth, and narrow bottom pierced with holes, and placing this within another pot, set both of them in a temperate warmth for some time. By this contrivance, the liquid part fell gradually through the perforations of the first pot, into the second, and left the crystals remaining in the first.

This

This sugar was coarse and clammy, and therefore to bring it more pure, he wrapped it up in a piece of blotting paper, and then gently pressed it with his hand; the effect was, that the paper sucked up much of the viscid moisture that had adhered to the sugar, and thereby left the latter more neat. Having thus divested it of its grossest impurities, he again boiled it up with lime-water till it became ropy, and taking it off the fire, kept stirring it till near cold, when he poured it off into a conical earthen vessel, stopped with wood. This he placed in another vessel as before, and in the space of about eight days, the syrup had all dropped through the first vessel, and left the crystals behind. These he purified still farther by means of blotting paper, as before, and a parcel of neat sugar was procured, equal in goodness to the best produced from the Sugar-cane. The liquid that was saved in the last pot too, had all the properties of common melasses.

It must be confessed that this process of Margraaf's, to extract the sugar from plants, is both slow and tedious; but nevertheless, it points out how copiously some of our vegetables are stored with a saccharine salt, which might be drawn from them in abundance by proper management, or an established method of business, as they have for the Sugar-cane; and that if it should ever
happen,

happen, that we were entirely deprived of this valuable article from abroad, yet the means of furnishing ourselves with it exists in our own country. By a shorter, but more expensive process, the same gentleman extracted sugar from several other roots, as *Carrots*, *Parsneps*, &c. and from the *Beet* and *Skirret* he has set down the qualities as follow: from

$\frac{1}{2}$ lb. of White Beet root, $\frac{1}{2}$ oz. of pure Sugar, $\frac{1}{2}$ lb. of Red Beet root, $1\frac{1}{4}$ oz. of pure Sugar, $\frac{1}{2}$ lb. of Skirret root, $1\frac{1}{2}$ oz. of pure Sugar.

Of these, he says, the sugar obtained from the White Beet was the best, that from the Skirret was next in goodness, and consequently the Red Beet afforded the worst of all.

27 { *LILIUM martagon.* *Lin. Sp. pl.*
435.
TULIPA gesneriana. *Lin. Sp. pl.*
438.

I have placed the *Lilium martagon* and the *Tulipa gesneriana* together, for the convenience of speaking upon them under one head. The first is a native of Hungary and some places of Siberia, and the latter grows spontaneously in Asia Minor. Linnæus says that the roots of the *Martagon Lily* make part of their daily food in Siberia, and that those of the *Tulip* are eaten in several parts
of

of Italy. This may seem strange to those who never had heard of such an use being made of them, but there are several other roots which were formerly made use of in diet, that are now totally neglected. Some species of *Ornithogalum* furnished a constant dish for the poorer people, where the plants grew spontaneously, and the root of the *latifolium* in particular was deemed excellent. I presume a great many bulbous roots of plants in the Hexandria Class, might be introduced into diet with safety and advantage; especially such as have little smell and taste, for that great master of nature, Professor Linnæus, has laid it down as a rule, that such plants as are no ways offensive to the palate and organs of smell, are of themselves of a harmless nature. And on the contrary, that those that are immediately disgusting to these two faculties, ought to be rejected as hurtful and pernicious. The first part of this rule is confirmed by daily experience, for all the sorts of grain constantly introduced into human food, have nothing in them, even in their crude state, that is obnoxious to either of these senses. And in respect to roots, we find nothing disagreeable in the flavour or smell of raw *Turneps*, *Parsneps*, *Potatoes*, and others, and when dressed they prove both pleasant and nutritious. As to the second part of the rule, I conceive Linnæus's meaning

ing to be this; that such plants as affect the organs with a very uneasy sensation, are improper for constant food; for if he intended they must not be eaten at all, experience shews the contrary. *Onions, Garlick,* and many more, whose smell is disagreeable to some, are occasionally used in diet, and in a general way are found to be wholesome. The roots of the *Crown Imperial* have a very nauseous smell, yet are frequently stewed in soups, without yielding any noxious quality to the liquor perceivable in the quantity used; but this does not by any means prove, that they may be generally eaten with safety.

28 TRAGOPOGON pratense. *Yellow Goats-beard.* *Lin. Sp. pl.* 1109.

Tragopogon pratense luteum majus. *Bauh. Pin.* 274.

This is a biennial plant, and grows very common on the borders, and mere-balks of our corn-fields. It hath a tap-shaped root, which sends forth a few narrow, grassy leaves, ending in an acute point, and doubled, so as to make their edges nearly meet. The stalk rises more than half a yard high, set at its joints with leaves like those at the bottom, and embracing the stalk with their base. Sometimes, near the top, the stalk breaks into two or three branches, each being terminated with a long, green, conical bud

bud, which on its breaking spreads horizontally, and displays numerous yellow, tongue-shaped, hermaphrodite florets; cut into five teeth at their points, and laying over each other like tiles. These are nearly equal in length to the rays of the empalement, and are succeeded by oblong, pointed seeds, crowned with long, feathery down, the whole forming a regular globe of two or three inches diameter.

The plant is known by the country people under the name of *Go to bed at noon*, or *Sleep at noon*, it being peculiar to the flowers to close themselves in the middle of the day. They dig up the roots when young and dress them as Parsneps, to which they prefer them.

29 *Tragopogon porrifolium*. *Purple Goats-beard*. *Lin. Sp. pl.* 1110.

Tragopogon purpureo-cæruleum, *porrifolium*, quod artefi vulgo. *Baub. Pin.* 274.

This too is a biennial, and is found wild in Cornwall, and some other places in England. It is a much larger plant than the former, and has leaves somewhat resembling those of Leeks; but they are of a lighter green colour, and each has a white longitudinal line running through its centre. The stalk is terminated with a large, beautiful purple flower, having the rays of the empalement much longer than the florets;

E

and

and just below the flower, it swells so as to become thicker than in the other parts.

This plant is cultivated in gardens by the name of *Salsafy*, and its roots are dressed and served up at table in a variety of forms. They are of a pleasant, nutritious nature, but though these are at present in the greatest esteem, they are much inferior to those of the *pratense*.

C H A P. II.

ESCULENT SHOOTS, STALKS, SPROUTS AND PITHS.

S E C T. I.

First Shoots and Stalks.

- 1 **A**SPARAGUS officinalis. *Aspa-
ragus.*
- 2 Anethum azoricum. *Sweet Azorian
Fennel.*
- 3 Angelica archangelica. *Angelica.*
- 4 Arctium lappa. *Common Burdock.*
- 5 Asclepias Syriaca. *Greater Syrian Dogf-
bane.*
- 6 Apium graveolens. *Smallage.*
——— dulce. *Garden Celery.*
- 7 Campanula pentagonia. *Thracian Bell-
flower.*
- 8 Cynara cardunculus. *Cardoon, or Char-
doon.*
- 9 Carduus marianus. *Milk Thistle.*
- 10 Cnicus cernuus. *Siberian nodding Cni-
cus.*
- 11 Chenopodium bonus Henricus. *English
Mercury.*

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- 12 *Convolvulus foldanella.* *Sea Bindweed.*
- 13 *Cucubalus behen.* *Spatling Poppy.*
- 14 *Epilobium angustifolium.* *Rosebay Willow-herb.*
- 15 *Humulus lupulus.* *Wild Hops.*
- 16 *Onopordum acanthium.* *Cotton Thistle.*
- 17 *Rheum rhaponticum.* *Rhapontick Rubarb.*
- 18 *Smyrniolum olusatrum.* *Common Alexanders.*
- 19 *Smyrniolum perfoliatum.* *Round-leaved Alexanders.*
- 20 *Saccharum officinarum.* *Sugar-cane.*
- 21 *Sonchus alpinus.* *Mountain Sow-thistle.*
- 22 *Tamus communis.* *Black Briony.*
- 23 { *Tragopogon pratense.* *Yellow Goats-beard.*
- { *Tragopogon porrifolium.* *Purple Goats-beard.*

1 *ASPARAGUS officinalis.* *Lin. Sp. pl.*
448.

Asparagus maritimus, crassiore folio.
Baub. Pin. 490.

The wild *Asparagus* differs little from the garden, except in the fineness of the leaves. The latter is so generally cultivated as to require no description, and the agreeableness of its young shoots, as a sallad, need not be mentioned. They certainly promote the appetite, but are said to afford little nourishment. By the strong, fetid smell they

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they communicate to the urine, soon after eaten, it is evident they are diuretick; but the plant in its wild state is said to be more powerfully so, than in its manured one. It is a native of England, and grows in the marshes near Bristol.

2 ANETHUM azoricum. *Sweet Azorian Fennel.*

Though this is made a distinct species of *Fennel* by some writers on Botany, yet it certainly is no other than a variety of the *Anethum feniculum* of Linnæus, which is the common *Fennel*. It was originally brought from the Azorian Islands, in the Atlantick ocean, hence the trivial name *azoricum*. The plant is much cultivated by the Italians, under the name *Finocchio*. It is low, compared with the common *Fennel*, and differs from it too in the nature of its stalks, which, instead of running up, begin to spread as soon as they get above the surface of the ground, till they become four or five inches broad, very fleshy, and sometimes near two inches thick.

The stalks have a sweet, fulsome taste, mixed with an aromatic, and are eaten either raw with oil and vinegar, or stewed in soups and gravies.

3 ANGELICA archangelica. *Angelica.* *Lin. Sp. pl. 360.*

Angelica fativa. Baub. Pin. 155.

E 3

Lapland

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Lapland is the native country of this plant, where it grows in great plenty upon the banks of the rivers.

The root consists of a parcel of thick fleshy fibres, sending forth several large, compound winged leaves, of a lightish green colour, having broad fleshy footstalks, and are composed of oblong, serrated, sharp-pointed lobes. Among these rises a round, fistulous, jointed stalk, to the height of five or six feet, and set with leaves at the joints, whose membranous bases embrace it. Towards the top the stem breaks into many branches, each terminated by a compound umbel, the rays of which are angular, and support globular heads of whitish flowers, containing five stamina and one style each. These are succeeded by greenish seeds, standing by pairs.

The stalks were formerly blanched and eaten as Celery, and the young shoots are at present in great esteem among the Laplanders. The plant is one of the finest aromatics Europe produces. Gardeners who have water running through their grounds cultivate it for the roots, which they sell to the confectioners to be made into a sweetmeat. This confection is one of the most warm and agreeable that can be; is good to expel wind and strengthen the stomach, and is surpassed only by that of Ginger.

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4 *ARCTIUM lappa*. *Common Burdock*.
Lin. Sp. pl. 1143.

Lappa major five *arctium diofcoridis*.
Baub. Pin. 198.

The *Arctium lappa* is a biennial plant, and is very common in waste grounds and by road fides.

It hath a long, thick, brown root, fending out many exceeding large heart-shaped, greyish-green leaves; among which rifeth a purplish, tough, ftriated ftalk, divided into feveral branches, furnifhed with fmall leaves. At the extremities of the branches come the flowers in bunches; they confift of a multitude of purple, hermaphrodite florets, included in a fcaly empalement, thickly fet with long, fflender, incurved fpines.

Many people cut the tender ftalks of this plant, and having ftripped off the outer fkin, boil and drefs them like *Asparagus*. They have not a very pleasant flavour, but the plant being aperient and fudorific, a frequent eating them in this manner would certainly do good fervice in fcorbutic habits. A decoction of the roots has been found to be very beneficial againft the rheumatifm, gout, and other diforders bordering upon thefe. I myfelf have lately been a witnefs to their good effects this way. If the boiled ftalks, or a decoction of the roots, fhould be difagreeable to any, who may be defirous

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of using them for the above complaints, they may preserve either with sugar, and eat them as a sweetmeat, but they will not prove altogether so efficacious.

5. ASCLEPIAS *Syriaca*, *Greater Syrian Dogbane*. *Lin. Sp. pl.* 313.

Apocynum majus syriacum rectum. Corn. canad. 90.

The *Asclepias Syriaca* is a native of Virginia, but has been a long time planted in the English gardens, both on account of its being an exotic, and for the sweet smell of its flowers, which are nearly as fragrant as those of the *Hesperis tristis*, or Garden Sweet Rocket.

From a white creeping root it sends up many round stems, four or five feet high, at the joints whereof stand two sessile, bright green oval leaves, opposite each other.

At the tops of the stalks, and sometimes at the bosoms of the leaves, come forth almost globular umbels of small, yet low purplish flowers, consisting of one petal each, divided into five oval parts, and containing five very minute stamina and one style. In the centre are two oval germina, which become two oblong, pointed pods, filled with compressed seeds, crowned with a soft down. The whole plant is so full of a milky juice, that when a leaf is taken off, the wound will discharge for a considerable time after.

This

SHOOTS and STALKS. 57

This plant has been always deemed a fatal poison to dogs, and very dangerous to the human species; notwithstanding this, a Mr. Wagstaff, of Norwich, has lately made trial of its young shoots, by boiling and dressing them like Asparagus, and they proved equally as pleasant and well tasted. Nor did the eaters experience any bad effects from them; hence it may be concluded, that either the boiling destroyed their deleterious property, or that the young shoots did not possess it in a hurtful degree. That fire will destroy the pernicious qualities of plants, is evident from the management of the *Jatropha maniot* before mentioned, and is also farther evinced by the leaves of Tea, which are poisonous in their crude state, but by being dried over an oven, this quality is so diminished or blunted, as not to be sensibly felt in a moderate use of them. It may reasonably be concluded then that boiling had a great share in rendering this plant salubrious, and that many others which are now deemed hurtful, might thereby become wholesome and agreeable fallads.

As the *Asclepias* was found to be innocent and palatable in almost a natural state, if it were put under the art and management of the gardener, much might be expected from it; for it being a plant that will thrive in any soil and situation, and as it sends out a prodigious quantity of suckers from the
root,

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root, its propagation would be easy, and in time it might be made to answer all the purposes of Asparagus, and prove a good succedaneum to that celebrated, but expensive vegetable. The down or cotton that adheres to the seeds of this plant, and some others of the same genus, and which is called *delawad* in France, is there made use of for stuffing of chairs and quilts. The latter are extremely warm and light, and are exceeding proper coverings for people labouring under any infirmity of body; for this matter is so elastic, that it adds little to the weight. A French gentleman has lately hit upon a method of spinning this down into balls like silk, for which contrivance he has obtained a patent from the French council, authorizing him to fabricate it into velvets and other stuffs.

6 *APIUM graveolens*. *Smallage*. *Lin. Sp. pl.* 379.

Apium palustre sive *Apium officinarum*. *Baub. Pin.* 154.

The *Apium graveolens* grows upon the banks of moist ditches in England, and sometimes even in the water. It is cultivated in gardens by the name *Apium dulce*, or Celery. In its wild state it is said to have very noxious qualities, but by cultivation it becomes not only wholesome, but serviceable for strengthening the stomach
and

SHOOTS and STALKS. 59

and assisting digestion. Most umbelliferous plants that grow in the water, or moist places, are poisonous, or at least hurtful to the human frame; but by transplanting they lose their evil qualities, and become aromatic and carminative. Celery is now so generally known as to render a description of the plant useless; nor need it be mentioned, that the blanched stalks are eaten raw, stewed, or otherwise.

7 CAMPANULA pentagonia. *Thracian Bell-flower.* *Lin. Sp. pl.* 239.

Speculum veneris, flore amplissimo, Thracicum. *Raj. Hist.* 742.

This grows in Thrace, and also in the corn-fields in France. It is a low, annual plant, seldom rising more than seven or eight inches. The stalks are numerous, weak, very much branched, and near their bottom have five obsolete angles.

The leaves are linear, that is, almost all the way of a breadth, sharpish pointed, and have no footstalks.

The flowers come out both at the divisions of the stalks, and the extremities of the branches; they are of a bluish purple, with a white eye in the centre; are deeply cut at their brims into five round segments, and contain five short stamina and one club-shaped style each. The seed vessel is long,
triangular,

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triangular, deeply furrowed, and contains many compressed, brown seeds.

The first tender shoots of this plant are a favourite sallad among the French. They sow it thick, and cut it when small as we do cresses. It has an agreeable taste, somewhat like Corn Sallad, and is held to be a good antiscorbutic. It is known in our gardens by the name of *Thracian Venus Looking-glass*.

8 CYNARA cardunculus. *Cardoon. Lin. Sp. pl. 1159.*

Cinara spinosa cujus pediculi esitantur. *Baub. Pin. 383.*

The *Cynara cardunculus* is a native of Candia, formerly the Island of Crete, in the Mediterranean sea. It differs from the common Artichoke in growing much taller, in the leaves being more finely cut, and thicker set with spines, and in having smaller and rounder heads.

The gardeners blanch the stalks, as they do Celery, and they are eaten raw with oil, pepper and vinegar; or as fancy directs they are boiled or stewed, and sometimes laid upon a toast and cheese.

9 CARDUUS marianus. *Milk Thistle. Lin. Sp. pl. 1153.*

Carduus albis maculis notatus vulgaris. Baub. Pin. 281.

This

SHOOTS and STALKS. 61

This is plentiful in waste places, and upon old banks. It is known to almost every one by its large, beautiful leaves, which are variegated with white spots and veins, as if they had been sprinkled with milk. This circumstance gave rise to a foolish, monkish tradition, that the Virgin Mary, when suckling our Saviour, accidentally let fall her milk upon the leaves of this plant, which stained all the succeeding ones since. The young shoot for leaves in the spring, cut close to the root, with part of the stalk on, is one of the best boiling sallads that is eaten, and surpasses the finest Cabbage.

10 *CNICUS cernuus*. *Nodding Cnicus*.
Lin. Sp. pl. 1157.

Siberia is the native country of the *Cnicus cernuus*. It is a perennial plant, with a thick, fleshy root, that breaks into many turgid fibres.

The radical leaves are heart-shaped, near a foot long, and six or seven inches broad; they stand upon very short footstalks, are of a deep green colour on their upper side, whitish underneath, and sawed on their edges.

The stem is reddish, generally near six feet high, channelled, and furnished with leaves more heart-shaped than those at the root. Towards the top it divides into branches,

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branches, each terminated by a globular head of yellowish flowers, surrounded by a scaly, prickly empalement. The florets are all hermaphrodite, funnel-shaped, cut into five segments at their brims, and contain five short, hairy stamina and one style each.

The tender stalks are first peeled, and then boiled and eaten as a salad, by the inhabitants where the plant grows.

II CHENOPODIUM bonus Henricus. *English Mercury. Lin. Sp. pl. 318.*

Lapathum unctuosum. Baub. Pin. 115.

The *English Mercury* is frequently to be met with in waste, and rubbishy places. From the root, which consists of several thick fibres, come forth many arrow-shaped, dark green leaves. Among these rise the flower-stalk, to about eighteen inches, thickly crowded with leaves, and divided at the top into many greenish spikes of flowers, having no petals, but consist of a pentaphyllous * calyx each, containing five stamina and one style.

The young shoots boiled are by many esteemed beyond Spinach, and it was formerly cultivated in the English gardens the same as Spinach now is, but of late it has been neglected, though it certainly merits the attention of the gardener as much as any salad in present use.

* Composed of five leaves.

The

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The country people call the plant *All-good*, from a conceit that it will cure all hurts; and the leaves are now a constant plaister among them for green wounds.

12 CONVULVULUS *soldanella*. *Sea Bind-weed*. *Lin. Sp. pl.* 226.

Soldanella maritima minor. *Baub. Pin.* 295.

The *Convolvulus soldanella* is common upon our sea-coasts, where the inhabitants gather the young shoots, and pickle them in the manner of Samphire. They have a cathartic quality, for a small quantity of the pickle will gently move the bowels. They have a salt, bitterish taste before pickled.

The plant hath a slender, creeping root, which puts forth many weak, purplish, striated stalks, about half a yard long, and trail upon the ground; these are furnished with kidney-shaped leaves, supported on long footstalks, and somewhat resembling those of Pilewort. The flowers come out at the footstalks of the leaves, on long peduncles; they are of a deep red colour, and bell-shaped, like those of common Bind-weed. The whole plant abounds with a milky juice.

13 CUCUBALUS *behen*. *Spatling Poppy*. *Lin. Sp. pl.* 591.

Lychnis

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Lychnis sylvestris, quæ *Behen album* vulgo. *Baub. Pin.* 205.

This is perennial, and very common in corn-fields and hedges. It hath a whitish, creeping root, composed of many joints, whence spring several stalks, about half a yard or two feet long, having their bottom parts curved, and usually lodge upon the ground; these are very full of joints near their base, and thickly set with pea-green, lance-shaped leaves, standing opposite, embracing the stalks with their base. The lower leaves are mostly finely ciliated on their margins. The flowers come out plentifully at the tops of the stalks; they are composed of five white bifid petals, protruded from a bladdery calyx, with a stamen inserted in the tail of each petal, and five standing alternately between them, the number of stamina being ten. The styles are uncertain, some flowers having but three, others four, and some five.

Our kitchen-gardens scarcely furnish a better flavoured salad than the young, tender shoots of this plant, when boiled. They ought to be gathered upon tilled land, and when they are not above two inches long. If the plant were under cultivation, no doubt but it would be improved, and would well reward the gardeners labour, by reason it sends forth a vast quantity of sprouts, which might be nipped off when of a proper size,
and

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and there would be a succession of fresh ones for at least two months. It being a perennial too, the roots might be transplanted into beds, like those of *Asparagus*.

The dried roots were formerly kept in the shops, by the name of *Behen album*, and were deemed cordial and cephalic.

14. *EPILOBium angustifolium*. *Rosebay Willow-herb*. *Lin. Sp. pl.* 493.

Lysimachia chamænerion dicta angustifolia. *Bauh. Pin.* 245.

This is a perennial plant, and common in woods and meadows in the northern parts of England. The radical leaves rise in a tuft; they are long, narrow, sharp-pointed, of a deep glossy green on the upper surface, of a silvery grey underneath, entire at their margins; have no footstalks, and have several transverse veins running through their substance. In the centre of these rises a round, firm, upright stem, to a man's height, irregularly set with leaves like the former, to near the top, where the stem is terminated by a long racemus of large, beautiful, deep-red flowers, standing in quadrifid calyces, and composed of four roundish petals each, surrounding eight declining stamina and one style. The germen is cylindrical, placed below the flower, and

F

turns

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ground. It is of a reddish brown colour on the outside, yellow within, and sends forth many very large, smooth, heart-shaped leaves, having thick footstalks of a reddish green colour, which are a little channelled on their under side, but are flat on the upper. When the plant grows in rich, strong land, the leaves will be two feet long, and as much broad, and they will have large, prominent veins running from the insertion of the footstalk to the borders. The footstalk too will be as long as the leaves, and thicker than a man's finger at their base. The leaves are of a dark green colour, slightly waved on their edges, and have a subastringent taste, mixed with an acid. Among these leaves rises the flower-stem, to the height of two or three feet; this is of a purplish colour, mixed with green, and has at each joint a small sessile leaf, of the shape of the former. The flowers are produced at the top of the stalk, in close, obtuse panicles; they are very small, have no empalements, but consist of one whitish petal each, cut into six segments, and having nine slender stamina inserted into it, surrounding three short, reflexed styles. The seeds are large, brown, triangular, and winged.

The footstalks of the radical leaves having an acid taste, and being thick and fleshy, are frequently used in the spring for making of tarts. If they be carefully peeled they
will

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will bake very tender, and eat agreeably. Many people prefer them even to Apples. There is another species of this genus (*the compactum*), the stalks of which I have many times known to have been used in the same manner, and have been counted equally as good; and I am inclined to think that the stalks of all the species might be thus employed indiscriminately.

The *Rhaponticum* was introduced into Europe in the beginning of the seventeenth century, by Alpinus, and was then supposed to be the true Rhubarb. The root is undoubtedly the Rhubarb of the ancients, but it is far inferior to either of the sorts kept at present in the shops, it being but slightly cathartic, and much more astringent. A decoction made from the green fresh roots is an excellent antiscorbutic, and in this respect is no way excelled, if equalled, by a decoction of the so much celebrated Water-Dock.

18 *SMYRNIUM olusatrum*. *Common Alexanders*. *Lin. Sp. pl.* 376.

Hipposelinum theophrasti, five *Smyrniun dioscoridis*. *Baub. Pin.* 154.

Since the introduction of Celery into the garden, the *Alexanders* is almost forgotten. It was formerly cultivated for sallading, and the young shoots or stalks blanched were eaten either raw or stewed. The leaves too

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were boiled in broths and soups. It is a warm comfortable plant to a cold, weak stomach, and was in much esteem among the monks, as may be inferred by its still being found in great plenty by old abbey walls.

It is a biennial, and hath a long, white root, which sends forth winged leaves, somewhat like those of Smallage, but much larger, and the lobes rounder. The stalk is furrowed, rises four or five feet high, is divided into many branches, and furnished with leaves at the joints. The branches terminate with large umbels of greenish white flowers, having five small, inflexed, spear-shaped petals each, including five stamina of the same length, and two styles. The natural soil of this plant is on rocks near the sea, and it is found in such places in the north of England and Scotland.

19 SMYRNIUM perfoliatum. *Round-Leaved Alexanders. Lin Sp. pl. 376.*

Smyrniium peregrinum rotundo, five oblongo folio. Baub. Pin. 154.

The *Perfoliatum* is a native of Italy. The bottom leaves of this species are exceedingly beautiful, being compounded of many fresh green, small leaves, which are divided into three oval, serrated lobes each. The stalk rises in the centre of these first leaves to about three feet high, and is divided near
the

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the top into two or three branches. It is smooth, hollow, and jointed. At each joint stands one large orbicular leaf, of a yellowish green colour, plain on the margin, and clasps the stalk with its base. This change of the leaves, from compound winged ones, to those that are round and entire, gives the plant a very singular appearance. The branches are terminated by compound umbels of small, yellowish flowers, having the same number of petals and stamina as those of the *olusatrum*.

The blanched stalks of this species are far preferable to those of the former, they being more pleasant and much tenderer.

261 SACCHARUM officinarum. *Sugarcane*. *Lin. Sp. pl.* 79.

Arundo saccharifera. *Baub. Pin.* 18.

This plant grows naturally in both Indies, where it is also cultivated for that useful part, its juice. It has a jointed root, which sends forth several shoots, that arrive to a height according to the nature of the soil. The medium one, however, is nine or ten feet. These stalks are jointed, and each joint has a leaf two or three feet long, which embraces the stem with its base to the next joint above it, before it expands. The stalks are of a light yellow colour, of a brittle substance, and have a white sweet pith running through them. The leaves

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are narrow, sharp pointed, set with fine sharp teeth on their edges, like those of the *Schænus mariscus*, and have a whitish prominent rib running from their apex to their base. The flowers are produced at the tops of the stalks, in large panicles, in the manner of our common Reed; these have no calyx, but each is composed of a bivalved, acute-pointed glume, surrounded with long, woolly down, and contains three hair-like stamina, of the length of the glume, together with an awl-shaped germen, supporting two rough styles, crowned with simple stigmata. The germen becomes an oblong, acute-pointed seed, enclosed in the glume.

The young, tender shoots are boiled, by the inhabitants of the West-India Islands, with Bananas, and Spanish Potatoes, into a thick pottage, there called *Collulos*. This is for negroe food, and is both pleasant to the palate, and very nourishing. The shoots thus boiled too, are exceedingly agreeable, if eaten by themselves.

Nature scarcely produces a more valuable plant than the *Sugar-cane*; for though it is not immediately necessary to the support of human life, yet it is capable of adding greatly to its comforts and enjoyments. Beside furnishing us with several home made wines, it would be impossible to reap the benefit of many sorts of fruit, in the manner we do, if we were entirely deprived of the sweet, delicious

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licious salt, called Sugar. By the mollifying qualities of this, many acid fruits are rendered palatable and agreeable in pies, tarts, &c. By this, several kinds of berries and roots are preserved from putrefaction from year to year, and become useful both in food and medicine. Rum, which is made from the produce of the Sugar-cane, is an excellent oily, nourishing spirit, if used physically, and in proper quantities. This, Melasses, and Sugar, furnish a prodigious fund of trade and riches, both to the inhabitants of the Indies, and those of Europe. To lay before the reader the tedious process of extracting the Sugar from the *Canes*, would be only abusing his time, as this has been fully treated upon by several writers, and it may be supposed he is already acquainted with it; I must therefore farther regard the immediate usefulness of the plant, and observe, that in the Indies, the tops of the *Canes* are cut into small pieces, and given to their domestic cattle, to which they prove very nourishing food, and keep them fat and in good spirits.

21 *SONCHUS alpinus*. *Mountain Sow-thistle*. *Lin. Sp. pl.* 1117.

Sonchus lævis laciniatus, five *Sonchus alpinus cæruleus*. *Baub. Pin.* 124.

This *Sonchus* is a native of England, and is found on the sides of hills. It is common

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too in Lapland, where the inhabitants eat the young shoots as a salad. How they may suit an English palate I don't know, but those who have a mind to try may observe the following description of the plant.

It is an annual, and sends up a straight, round, hollow, purplish stem, irregularly set with jagged leaves, somewhat like those of Dandelion, but the sinuses are finely serrated on the edges. The flowers come out at the top of the stem in a racemus; they are large, and composed of many blue, hermaphrodite florets, standing in an imbricated, bellying calyx. The seeds are like those of the common Sow-thistle, crowned with down.

22 TAMUS communis. *Black Briony*,
Lin. Sp. pl. 1458.

Bryonia laevis sive nigra racemosa. Bauh.
Pin. 297.

The *Black Briony* is common in woods and hedges in most parts of England. It is male and female in distinct plants. The root of either is large, tap-shaped, fleshy, and covered with a dark brown skin. From this come several brownish green stalks, which twine about any thing within their reach, till they arrive at ten or twelve feet in length; these are furnished at the joints with dark green, glossy, heart-shaped leaves, standing singly upon long foot-stalks.

The

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The flowers are produced in short, turgid bunches from the sides of the stalks; those of the male have six short stamina, fixed to a flat empalement, of six oval leaves; the females are composed of a bell-shaped calyx or empalement, cut into six segments, with an oblong, punctured gland sitting on the inside of each. When the female flowers are fallen, they are succeeded by smooth, dark red berries, of the size of small Grapes, containing six round seeds each, about as big as those of Gromwell.

This plant has been generally held to have corrosive and dangerous qualities, yet its young shoots are frequently boiled and eaten in the spring, the same as those of Hops, and are by many as much esteemed. The leaves and roots were formerly kept in the shops; the latter, scraped and then rubbed upon any part pained or swelled with the rheumatism, has in most instances done much service. When thus used they ought to be fresh taken out of the ground.

23 *Tragopogon pratense.* *Yellow Goats-beard.*

Tragopogon porrifolium. *Purple Goats-beard.*

Both these were described in the former Chapter, therefore it is only to be observed here, that their young shoots, when advanced to about four inches high, are
boiled

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boiled and eaten in the manner of the rest of this order, and that those of the *pratense* are frequently preferred to Asparagus. Both plants contain a milky juice, have a diuretic quality, and are supposed serviceable against the gravel.

S E C T. II.

Sprouts and Piths.

- 1 **A**RECA oleracea. *Cabbage-tree.*
- 2 Arundo bambos. *Bamboo-cane.*
- 3 Brassica oleracea, vel sylvestris. *Sea, or Common White Cabbage.*
 ——— *viridis.* Green Savoy Cabbage.
 ——— *sabauda.* White Savoy Cabbage.
- 4 Brassica botrytis. *Cauliflower.*
 ——— *alba.* White Cauliflower Brocoli,
 ——— *nigra.* Black Cauliflower Brocoli.
- 5 Brassica fabellica. *Siberian Brocoli, or Scotch Kale.*
- 6 Brassica præcox. *Early Battersea Cabbage.*
- 7 Brassica rapa. *Common Turnep.*
- 8 Cyperus papyrus. *Paper Rush.*
- 9 Cycas circinalis. *Sago Palm-tree.*
- 10 Portulaca oleracea. *Purslane.*
 ——— *latifolia.* Broad-leaved Garden
 Purslane.

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II *Smilax aspera*. *Red-berried rough Bind-weed*.

I *ARECA oleracea*. *Cabbage-tree*. *Lin. Systema Naturæ*, 730.

This is a species of Palm, and a native of the West-Indies, where it grows with a taper body to a very great height. The leaves are large and pinnated, and the lobes are entire. It hath male and female flowers issuing from the same spatha. The male are supported upon a branched spadix, springing from a bivalve spatha; these have three sharp pointed, stiff petals each, surrounding nine stamina, three of which are longer than the rest. The female flowers come from the same common spatha, have no styles, but consist of three acute-pointed petals each. When these fall off, the germen swells to an almost oval, fibrous berry, containing one oval seed.

This is the only species of Palm that is mentioned by Linnæus to afford esculent leaves or buds, and it is from the pith of this species that the West-India Sago is said to be made; but whether this is the only one that bears what is called the *Cabbage*, is not easily to be determined, by reason the descriptions given by different writers of this kind of tree, are very vague and uncertain. Miller, in his Dictionary, has mentioned two sorts of esculent Palms, one
from

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from Sloane, which he calls the *Cabbage-tree*, and the other from Dr. Houstoun, which he names the *Mountain Cabbage*. To what particular genus of the Palms either species belongs, is impossible to be told from Miller; and by the small difference in the descriptions * given by the above two gentlemen of the trees, it is probable they both meant one and the same species, and that the *Areca oleracea* of Linnæus. But as this is a matter which cannot be made perfectly clear, I shall describe Miller's Cabbage-trees in his own words. *rst.* "This tree rises to a very great height in the country where it grows naturally. *Edmon*, in his history of *Barbadoes*, says, there were then some of the trees growing there, which were more than two hundred feet high; and that he was informed they were a hundred years growing to maturity, so as to produce seed. The stems of these trees are seldom larger than a man's thigh; they are smother than those of most other sorts, for the leaves naturally fall off entire from them, and only leave the vestigia or marks where they have grown. The leaves (or branches) are twelve or fourteen feet long; the small leaves or lobes are about a foot

* *Palma altissima non spinosa, fructu pruniiformi minore racemoso-sparso. Sloan. Cat.*

Palma altissima non spinosa, fructu oblongo. Houstoun.

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long, and half an inch broad, with several longitudinal plaits or furrows, ending in soft acute points, and are placed alternately. The flowers come out in long loose bunches below the leaves; these branch out into many loose strings, and are near four feet long, upon which the flowers are thinly placed. The female flowers are succeeded by fruit about the size of a Hazel-nut, having a yellowish skin, sitting close to the strings of the principal footstalk.

“ As the inner leaves of this encompass the future buds more remarkably than most of the other species, so it is distinguished by the appellation of Cabbage-tree; for the centre shoots, before they are exposed to the air, are white and very tender, like most other plants that are blanched; and this is the part which is cut out and eaten by the inhabitants, and is frequently pickled and sent to England by the title of Cabbage; but whenever these shoots are cut out, the plants decay and never thrive after; so that it destroys the plants, which is the reason that few of the trees are now to be found in any of the Islands near settlements, and those are left for ornament.”

This is Miller's account of *Sloane's* Cabbage tree; and of that described by *Houftoun*, he says, “ The fruit of this kind is about an inch and an half in length, and near two inches in circumference. The flower-buds,
which

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which are produced in the centre of the plants, are by the natives cut, and boiled to eat with their meat, and are by them called the Mountain Cabbage.¹⁸

From these accounts of the two trees we find, that the buds for leaves of the one are eaten, and the flower-buds of the other, which seem to indicate, indeed, that they are distinct species; unless it may be, that both sorts of buds of the same tree are used as here mentioned. In regard to the genus *Areca*, it contains only two species at present known, the *oleracea*, and the *cathecæ*; from the juice of the latter the *Terra Japonica* of the shops is said to be made. This last tree is called *Faufel*. Captain Dampier, in his voyage round the world, met with abundance of *Cabbage-trees* at the Island of St. Jago, near the Isthmus of Darien, in the South Sea, where he measured one which reached 120 feet; the leaves or branches were 12 or 14 feet. In the middle of the branches, he says, grows the fruit, (this is, the Cabbage) about a foot long, as thick as a man's leg, white, and very sweet, whether eaten raw or boiled. Between the Cabbage and the branches sprout many small twigs, about a foot long, at the end of which grow hard, round berries, of the size of Cherries, which falling off, afford excellent food for the hogs.

In the body of these trees there runs a
pith,

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pith, which is a nutritious food to a particular kind of worms, and in which, after the trees are felled, they breed in great abundance. These worms or grubs are eaten by the French in some of the West India islands, and are esteemed a great delicacy. They are nearly the size of one's little finger, and have a black head, equal in thickness to the body. The manner of dressing them for table is, to string them upon skewers, and hang them before the fire, and as soon as they are thoroughly warm, to sprinkle them with fine raspings of crust of bread, salt, pepper, and nutmeg, thereby to absorb the fat. When sufficiently roasted they are served up with orange or citron sauce.

2 ARUNDO bambos. *Bamboo Cane.* Lin.
Sp. pl. 120.

Tabaxir & Mombu arbor. *Baub. Hist.*
I. p. 222.

This curious *Reed* is a native of both the Indies, where it frequently attains the height of sixty feet. The main root is long, thick, jointed, spreads horizontally, and sends out many cylindrical, woody fibres, of a whitish colour, and many feet long. From the joints of the main root spring several round, jointed stalks, to a prodigious height, and at about ten or twelve feet from the ground, send out at their joints several stalks joined

G

together

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together at their base; these run up in the same manner as those they shoot out from. If any of these be planted, with a piece of the first stalk adhering to them, they will perpetuate their species. They are armed at their joints with one or two sharp, rigid spines, and furnished with oblong - oval leaves, eight or nine inches long, seated on short footstalks. The flowers are produced in large panicles, from the joints of the stalks, placed three in a parcel close to their receptacles; they resemble those of the common Reed, and are succeeded by seeds of the same form, surrounded with down.

The young shoots are covered with a dark green bark; these when very tender are put up in vinegar, salt, garlic, and the pods of capficum, and thus afford a pickle, which is esteemed a valuable condiment in the Indies, and is said greatly to promote the appetite, and assist digestion. The stalks in their young state are almost solid, and contain a milky juice; this is of a sweet nature, and as the stalks advance in age, they become hollow, except at the joints, where they are stopped by a woody membrane, upon which this liquor lodges, and concretes into a substance called *Tabaxir*, or sugar of *Mombu*, which was held in such esteem by the ancients, in some particular disorders, that it was equal in value to its weight in silver. The old stalks grow to

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five or six inches diameter, are then of a shining yellow colour, and are so hard and durable, that they are used in buildings. These, when bored through the membranes at their joints, are converted into water-pipes, and make excellent good ones. The smaller stalks are used for walking-sticks, and are called *Rotang*. The inhabitants of Otaheite make flutes of them, about a foot long, with two holes only, which they stop with the first finger of the left hand, and the middle one of the right, and they blow through their nostrils.

3 *BRASSICA oleracea.* *Common White Cabbage.* *Lin. Sp. pl.* 932.

This is a native of England, and is found wild on the sea-coasts. Numbers 4, 5, and 6, are, by Linnæus, made only varieties of Number 3. Whether he is right in this is hard to determine, for the number of *Cabbages* now raised makes it impossible to tell with certainty, which are species and which varieties. And this difficulty is constantly increasing by the mixing of the farina of one sort with another, and thereby producing new variations. There is some probability, however, that the Cauliflower is a distinct species, and it is certain that the different sorts of Brocoli are varieties of the Cauliflower. They are all too well known to require any description, and their young

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shoots are generally acknowledged to be superior to most other vegetables.

7 *BRASSICA rapa. Common Turnep. Lin. Sp. pl. 931.*

Rapa sativa rotunda. Baub. Pin. 89.

This has been mentioned in the first Chap. but as the sprouts are frequently eaten in the spring, it had a right to a place here also. If these be gathered when very tender, they are an excellent sallad.

8 *CYPERUS papyrus. Paper Rusb. Lin. Sp. pl. 70.*

Papyrus Syriaca et Siciliana. Baub. Pin. 19.

This is a grass-leaved plant, growing naturally in Egypt, Syria, and some other parts of the East. It hath a creeping root, from which comes forth a tuft of long, slender leaves; in the midst of these rise very thick three-square, naked stalks, terminated by umbels of small, chaffy flowers, laying over each other like tiles. The spokes or rays of the umbel are long, slender, exceedingly numerous, stand rather upright, and are nearly of an equal length. Each issues from a short distinct sheath, and towards the top is set with awl-shaped, sessile spiculæ, standing by threes on a short peduncle. The flower contains three short stamina, tipped with oblong summits, and

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one slender style, supporting three hair-like stigmata. The germen is small, and becomes a three-square, sharp-pointed seed.

The stalk of this plant contains a sweet, nutritious pith, which the ancient Egyptians made use of as bread. Of the stalks or leaves, it is now uncertain which, they made their paper, but the manner of preparing it is at present unknown. It seems, however, to have been the only paper in use in the time of Moses. The Egyptians likewise made sails and even boats of these rushes, which they caulked with slime and pitch, and in one of these Moses was concealed by his mother*.

9 *CYCAS circinalis.* *Sago Tree.* *Lin. Sp. pl.* 1658.

Palma indica, caudice in annulos protuberante distincto. *Raii Hist.* 1360.

This is a species of Palm, which grows spontaneously in the East Indies, and particularly on the coast of Malabar. It runs up with a straight trunk, to forty feet or more, having many circles the whole length, occasioned by the old leaves falling off; for they standing in a circular order round the stem, and embracing it with their base, whenever they drop, they leave the marks

* Exodus Chap. ii. ver. 3. These boats are still in use in the eastern parts of Africa, where they are kept upon the lakes as pleasure-boats.

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of their adhesion behind. The leaves are pinnated, and grow to the length of seven or eight feet. The pinnæ or lobes are long, narrow, entire, of a shining green, all the way of a breadth, lance-shaped at the point, are closely crowded together, and stand at right angles on each side the midrib, like the teeth of a comb. The flowers are produced in long bunches at the footstalks of the leaves, and are succeeded by oval fruit, about the size of large plums, of a red colour when ripe, and a sweet flavour. Each contains a hard brown nut, enclosing a white meat, which tastes like a Chestnut.

This is a valuable tree to the inhabitants of India, as it not only furnishes a considerable part of their constant bread, but also supplies them with a large article of trade. The body contains a farinaceous substance, which they extract from it and make into bread in this manner: they saw the body into small pieces, and after beating them in a mortar, pour water upon the mass; this is left for some hours to settle. When fit, it is strained through a cloth, and the finer particles of the mealy substance running through with the water, the gross ones are left behind, and thrown away. After the farinaceous part is sufficiently subsided, the water is poured off, and the meal being properly dried, is occasionally made into cakes and baked. These cakes are said
to

to eat nearly as well as wheaten bread, and are the support of the inhabitants for three or four months in the year.

The same meal more finely pulverized, and reduced into granules, is what is called *Sago*, which is sent into all parts of Europe, and sold in the shops for a great strengthener and restorative.

There is a sort of Sago made in the West Indies, and is sent to Europe in the same manner as that from the East; but the West India Sago is far inferior in quality to the other. It is supposed to be made from the pith of the *Areca oleracea*, already described.

10 PORTULACA oleracea. *Purshane.*
Lin. Sp. pl. 638.

Portulaca angustifolia sylvestris. *Baub.*
Pin. 288.

This is an annual plant, and a native of the warmer parts of Europe. It has many round, thick, reddish, succulent stalks, near half a yard long, which generally lodge upon the ground; these break into many branches, thickly set with sessile, fleshy, wedge-shaped leaves, some of a pale green, others of a reddish colour, and mostly standing four or more together in whorls. In the bosoms of these the flowers are produced; they are sessile, small, of a yellowish colour, and are composed of five plain erect, obtuse petals each, with many hair-like stamina, about

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half the length of the petals, and one style, crowned with oblong stigmata.

This plant is frequently raised in gardens for sallading, and the alteration it receives from culture is chiefly in the breadth and succulency of the leaves. Many admire it, but it is of a very cold nature, and apt to chill the blood, therefore should be eaten sparingly.

II *SMILAX aspera*. *Red-berried rough Bindweed*. *Lin. Sp. pl.* 1458.

Smilax aspera, fructu rubente. *Baub. Pin.* 296.

This species of *Smilax* is a shrubby plant, and grows spontaneously in Spain, Italy, and Palestine. It hath a fleshy root, which sends up several weak, brown, slender, angular stalks, armed with short, crooked spines, and are furnished with tendrils at their joints or bents, by which they clasp round any adjacent plant, and by that means rise to seven or eight feet high. The leaves are large, stiff, heart-shaped, very sharp-pointed, of a reddish colour, have short reddish spines on their margins, and are supported on slender footstalks. The flowers are produced in small bunches at the angles of the stalks, and are male and female on separate plants. The male flowers are composed of a six-leaved bellied calyx, containing six stamens, crowned by oblong summits. The females

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females too have no petals, each consisting of a calyx like the male, with an oval germen, supporting three styles. The fruit is a small red berry, having three cells, containing two seeds each.

The young tender shoots are boiled and eaten as others of this order. There are two or three varieties of this plant, one in particular with a black fruit.

C H A P.

C H A P. III.

ESCULENT LEAVES.

S E C T. I.

Cold Sallads.

- 1 **A**PIUM petroselinum. *Parsley.*
 —— crispum. *Curled-leaved Parsley.*
- 2 Allium cepa. *Common Onion.*
- 3 Allium schœnoprasum. *Cives.*
- 4 Allium oleraceum. *Wild Garlick.*
- 5 Artemisia dracunculus. *Taragon.*
- 6 Alfine media. *Common Chickweed.*
- 7 Borago officinalis. *Borage.*
- 8 Cacalia ficoides. *Fig Marigold-leaved Cacalia.*
- 9 Cichorium endivia. *Endive.*
 —— endiva crispa. *Curled-leaved Endive.*
- 10 Cochlearia officinalis. *Scurvygrafs.*
- 11 Erysimum alliaria. *Jack by the Hedge.*
- 12 Erysimum barbarea. *Winter Crefs or Rocket.*
- 13 Fucus saccharinus. *Sweet Fucus or Sea Belts.*
- 14 Fucus palmatus. *Handed Fucus.*
- 15 Fucus

- 15 *Fucus digitatus.* *Fingered Fucus.*
- 16 *Fucus esculentus.* *Edible Fucus.*
- 17 *Hypochæris maculata.* *Spotted Hawk-weed.*
- 18 *Lactuca sativa.* *Lettuce.*
- 19 *Leontodon taraxacum.* *Dandelion.*
- 20 *Lepidium sativum.* *Garden Cress.*
- 21 *Lepidium virginicum.* *Virginian Sciatic Cress.*
- 22 *Mentha sativa.* *Marsh or Curled Mint.*
- 23 *Mentha viridis.* *Spear Mint.*
- 24 *Oxalis acetosella.* *Wood Sorrel.*
- 25 *Poterium sanguisorba.* *Garden Burnet.*
- 26 *Primula veris.* *Common Cowslips or Paigles.*
- 27 *Rumex scutatus.* *Round-leaved Sorrel.*
- 28 *Rumex acetosa.* *Common Sorrel.*
- 29 *Salicornia europæa.* *Jointed Glasswort or Saltwort.*
- 30 *Scandix cerefolium.* *Common Chervil.*
- 31 *Scandix odorata.* *Sweet Cicely.*
- 32 *Sedum reflexum.* *Yellow Stone Crop.*
- 33 *Sedum rupestre.* *St. Vincent's Rock Stone Crop.*
- 34 *Sisymbrium nasturtium.* *Water-cress.*
- 35 *Sinapis alba.* *White Mustard.*
- 36 *Tanacetum balsamita.* *Costmary.*
- 37 *Valeriana locusta.* *Lambs Lettuce.*
- 38 *Veronica beccabunga.* *Brooklime.*
- 39 *Ulva lactuca.* *Green Laver.*

1 The use of the leaves of *Parsley* is well known

known in the kitchen, and the virtues of the plant have been mentioned before; but it may not be amiss to observe farther, that some farmers cultivate whole fields of this plant, for the use of their sheep, it being a sovereign remedy to prevent them from the rot, provided they are fed with it twice or thrice a week. But this cannot be practised where hares and rabbits abound, for these creatures are so fond of it that they will make long excursions to get at it; and in a short time will destroy a large crop.

2 The *Allium cepa* too has been mentioned in a former Chapter, and stands here only on account of its leaves being in common use among other cold salad herbs.

3 *ALLIUM scœnoprasum. Crives. Lin. Sp. pl. 432.*

Porrum sectivum juncifolium. Baub. Pin. 72.

This is an inhabitant of Siberia, and is a very small plant compared with the former, the leaves and stems seldom exceeding six inches in length, and the roots never producing any bulbs. The leaves are awl-shaped, hollow, and the stem naked. It was formerly in great request for mixing with salads in the spring, but has been little regarded lately. Its taste, smell, and virtues are

are much the same as those of the common Onion.

4 *ALLIUM oleraceum.* *Wild Garlick.*
Lin. Sp. pl. 429.

Allium montanum bicornes, flore exalbido.
Baub. Pin. 75.

This grows in the pastures and corn-fields in Essex, and some other parts of England. It hath a small, white, bulbous root, which sends up a straight, round stalk, about half a yard high, furnished with a few rough, pale green leaves, round on one side, and deeply furrowed on the other. The stem issues from a horned spatha or sheath, and is terminated by an umbel of whitish green flowers, striped with purple.

The roots and leaves are used in Sweden the same as those of the common *Onion* are here.

5 *ARTEMISIA dracunculus.* *Taragon.*
Lin. Sp. pl. 1189.

Dracunculus hortensis. *Baub. Pin.* 98.

This is a native of Siberia and other northern parts of Europe. It hath a woody sort of root, composed of a multitude of fibres, and sends up several round, crooked, branched stalks, about two feet high, irregularly set with long, narrow, smooth, lance-shaped leaves, without footstalks; these have a taste and smell almost peculiar
to

to themselves, but which are exceedingly grateful to many. The flowers are produced in close, slender panicles at the tops of the branches, and are of an herbaceous colour.

The leaves of this plant make an excellent pickle, which in the opinion of many people is not to be equalled by any other.

6 ALSINE media. *Chickweed. Lin. Sp. pl.* 389.

This is a small annual plant, and a very troublesome weed in gardens. The stalks are weak, green, hairy, succulent, branched, about eight inches long, and lodge on the ground. The leaves are numerous, nearly oval, sharp-pointed, juicy, of the colour of the stalks, and stand on longish footstalks, having membranous bases, which are furnished with long hairs at their edges. The flowers are produced at the bosoms of the leaves on long, slender peduncles; they are small and white, consist of five split petals each, and contain five stamina and three styles.

The leaves of this plant have much the flavour of Corn-Sallad, and are eaten in the same manner. They are deemed refrigerating and nutritive, and an excellent food for those of a consumptive habit of body. The plant formerly stood recommended in the shops as a vulnerary.

7 BORAGO

7 BORAGO officinalis. *Borage. Lin. Sp. pl.* 197.

Buglossum latifolium, *Borago. Baub. Pin.* 259.

This is an annual, and grows plentifully by road sides, and other uncultivated places. It also is cultivated in gardens, in order to have it at hand to mix with stuffing herbs, and to put into cool tankards, whereby the plant is sufficiently known. The whole is supposed cordial and exhilarating, but for what reason is difficult to guess, as neither the smell or taste countenance any such properties.

8 CACALIA ficoides. *Fig Marigold-leaved Cacalia. Lin. Sp. pl.* 1168.

This is a shrubby plant, and a native of Æthiopia. From the root rise several round stalks, to the height of seven or eight feet; these are hard and woody below, but tender and succulent upward, where they send out many irregular branches, which are furnished with lance-shaped, compressed, fleshy leaves, ending in acute points, covered with a whitish farina or meal, that easily comes off when touched. The flowers are produced at the extremity of the branches, in small umbels; they are composed of many white, tubular, hermaphrodite florets, standing in a common cylindrical calyx, are cut at their brims into five parts, and each contains

tains five short slender stamina, and one style, fastened to an oblong germen, which becomes an oblong seed, crowned with long down.

The leaves of this plant are pickled by the French, who esteem them much; and in doing this they have a method of preserving the white farina upon them, which greatly adds to the beauty of the pickle when brought to table.

9 CICHORIUM endivia. *Endive. Lin. Sp. pl. 1142.*

Cichorium latifolium five *Endivia vulgaris. Bauh. Pin. 125.*

The *Endive* and its varieties have been so long cultivated in England, and other parts of Europe, that it is impossible to tell with certainty what country claims it as a native. The plant is well known in the gardens, and its uses in the kitchen.

In regard to its physical properties it is counted detergent, aperient, and attenuating, tending rather to cool than heat the body. By opening obstructions of the liver, it gives relief in the jaundice; and by its detergent quality, it is serviceable in scorbutic habits.

10 COCHLEARIA officinalis. *Scurvygrass. Lin. Sp. pl. 903.*

Cochlearia folio subrotundo. Bauh. Pin. 110. This

This is found wild in the Marshes near the northern coasts of England, but it is probable it was at first introduced into our gardens from Holland, where it grows very plentifully. It is an annual plant, with a small fibrous root, from which come many roundish, fleshy, shining green leaves, a little waved on their edges, and are supported on long foot-stalks. Among these rise several pale green, round stalks, a little branched towards their tops, and having a few oblong, sharp-pointed, light-green leaves, standing on them by pairs. The stalks rise to about a foot high, producing various bunches of flowers, consisting of four small white petals each, placed nearly at right angles with each other, and surrounding six stamina, four of which are longer than the rest. The germen is nearly heart-shaped, and becomes a roundish seed-vessel, having two cells, separated by a thin membrane, in each of which are contained four or five round seeds.

The leaves of this plant are exceedingly pungent, therefore the best way of eating them is between bread and butter, as by this means they are rendered less offensive to the palate, and their whole virtues, which are very considerable, are taken into the stomach. Used any way they divide viscid juices, open obstructions; scour the glands, and become a sovereign remedy against the

scurvy; all which have justly obtained the plant the name of Scurvy grafs. There is a conserve, and a plain spirit of it kept in the shops, both which are in great esteem, but they are far inferior, as anti-scorbuticks, to the fresh leaves, eaten as above directed; frequently used in this manner they must prove beneficial in all cold phlegmatic constitutions, and cleanse the skin of scabs, and other cutaneous eruptions.

11 ERYSIMUM alliaria. *Jack by the Hedge. Lin. Sp. pl. 922.*

This is a very common plant among bushes and in hedge-rows. It is a perennial, and hath a long, whitish root, divided into several parts. The radical leaves rise in a cluster, upon long, slender footstalks; they are heart-shaped, of a light yellowish green colour, about three inches broad, and crenated on their edges. The stem is erect, firm round, sometimes a little branched, about a yard high, and furnished with leaves like those below, but smaller. It terminates in a racemus of whitish flowers, having four petals each, including six stamina, two of which are shorter than the rest, and one very short style. The succeeding pods are long, slender, all the way of a thickness, and contain many small blackish

ish seeds. The whole plant has the smell and taste of Garlick.

The poor people in the country eat the leaves of this plant with their bread, and on account of the relish they give, call them *Sauce-alone*. They also mix them with Lettuce, use them as a stuffing herb to pork, and eat them with salt-fish. The plant was in high esteem formerly as an attenuater, and powerful expectorant, and held immediately useful in asthmas; and distillations of rheum upon the lungs. *Low feed quickly on it in Spring & Butter-milk is tainted by it*

12 ERYSIMUM barbaea. *Winter-cress*.
Lin. Sp. pl. 922.

Eruca lutea latifolia sive barbaea. Baub.
Pin. 98.

The *Winter-cress* grows plentifully on moist banks and by ditches. It is a perennial, and hath a long thickish root, furnished with a few fibres. The bottom leaves are cut into four or five pair of lobes; like pinnæ, with a large roundish one at the end. Among these come several flower-stems; about half a yard high, irregularly set with leaves like those from the root, but they are smaller. The stems divide into many branches, terminated by loose spikes of small yellow flowers, having four petals each, which include six stamina, two shorter than the rest, and one style. The succeeding pods are long and slender. There is a

beautiful variety of this plant in gardens, with a double flower, and is generally called the yellow Rocket.

The leaves were formerly mixed with fallad herbs, but their having rather a rank smell, and no very agreeable flavour, are now neglected here, though in Sweden they still retain a place at table.

The plant is a powerful antiscorbutic, and no way inferior to the Water-cress.

13 *Fucus saccharinus.* *Sea Belts.* *Lin. Sp. pl.* 1630.

Fucus alatus five *phagnagoides.* *Baub. Pin.* 364.

This is a weed that grows upon rocks and stones by the sea-shore. It consists of a long, single leaf, having a short roundish foot-stalk, the leaf representing a belt or girdle.

14 *Fucus palmatus.* *Handed Fucus.* *Lin. Sp. pl.* 1630.

This grows also in the sea, and consists of a thin, lobed leaf, in the form of a hand.

15 *Fucus digitatus.* *Fingered Fucus.* *Hud. Flo. Ang.* 579.

Fucus arboreus polyschides edulis. *Baub. Pin.* 364.

This grows likewise upon stones and rocks in the sea near the shore. It hath several plain,

plain, long leaves or sinuses, springing from a round stalk, in the manner of fingers when extended.

16 *Fucus esculentus*. *Edible Fucus*.
Hud. Flo. Ang. 578.

Mr. Hudson has made this a distinct species, but Linnaeus included it under his *saccharinus*. It grows plentifully in the sea, near the shores of Scotland, and also those of Cumberland. This hath a broad, plain, simple, sword-shaped leaf, springing from a pinnated stalk. All these four species are collected by the sailors, and people along the sea-coasts, as salad herbs, and are esteemed excellent antiscorbuticks. The leaves of the *saccharatus* are very sweet, and when washed and hanged up to dry, will exude a substance like that of sugar.

17 *HYPOCHÆRIS maculata*. *Spotted Hawkweed*. *Lin. Sp. pl.* 1140.

Hieracium alpinum latifolium hirsutia incanum, flore magno. *Bauh. Pin.* 128.

This is a perennial plant, and a native of England. The root is composed of a multitude of fibres, from which spring a cluster of large, oval, hairy, deep green, spotted leaves, having sharp teeth, set at considerable distances along their margins. The stalk rises in the midst of these, with a bunch of sessile leaves near its base; it is up-

right, firm, and naked from thence to the top, where mostly stands only one large, gold-coloured compound flower, having an imbricated calyx, and consisting of hermaphrodite, tongue-shaped florets, cut into five teeth at their brims, and each containing five short, hairy stamina and one style.

The leaves are eaten as those of *Lettuce*, and are deemed cooling; they are also boiled in broths.

18 *LACTUCA fativa.* *Garden Lettuce.*
Lin. Sp. pl. 1118.

This hath been so long cultivated in gardens, that its native place of growth is not known. The varieties of it are very numerous; Dr. Boerhaave has given a list of 47 that were growing in the Botanic Garden, at Leyden, in the year 1720, and we have near a score at this time cultivated in England. *Lettuce* is a cooling, emolient, laxative plant, but like most lactescent ones has a narcotic quality, as any one may perceive who eats plentifully of it.

19 *LEONTODON taraxacum.* *Dandelion.*
Lin. Sp. pl. 1122.

Dens leonis, latiore folio. *Baub. Pin.*
126.

This is a most troublesome weed to farmers and gardeners, for when it is once fixed in their grounds, it is no easy matter

to eradicate it, by reason its downy seeds fly to all parts and vegetate on any soil; hence the plant is so well known as to render a description of it useless.

The young tender leaves are eaten in the spring as Lettuce, they being much of the same nature, except that they are rather more detergent and diuretic. Boerhaave greatly recommended the use of *Dandelion* in most chronical distempers, and held it capable of resolving all kinds of coagulations, and the most obstinate obstructions of the viscera, if it were duly continued. For these purposes the stalks may be blanched and eaten as Celery.

20 *LEPIDIUM sativum.* *Garden Cress.*
Lin. Sp. pl. 899.

Nasturtium hortense vulgatum. *Baub.*
Pin. 103.

This is an annual plant, and a native of Germany. The leaves are long, narrow, and deeply cut into irregular segments. The stalk is round, firm, upright, about two feet high, of a whitish green colour, a little branched towards the top, and is all the way furnished with many jagged leaves.

The flowers come out in bunches at the tops of the branches, each consisting of four small, white petals, including six stamina, four longer than the rest, and one style;

these are succeeded by a kind of heart-shaped pods, containing brown seeds.

The plant is now generally sown in gardens for a spring sallad, and perhaps a better can scarcely be cultivated. It is of a warm, stimulating nature, having much the same qualities as the Watercress, but is less pungent. There is a variety of this with curled leaves, which has the same properties with the original, but is more used for garnishing dishes than sallading.

21 LEPIDIUM Virginicum. *Virginian Sciatic Cress. Lin. Sp. pl. 900.*

Though the *Virginicum*, as its name expresses, grows in Virginia, yet it is also an inhabitant of several of the West-India Islands, and especially of Jamaica.

It is an annual, and sends forth a very branched stalk, about half a yard high, set with narrow, winged leaves, the lobes of which are finely serrated.

The flowers come out in the manner of those of the *fativum*, but some of them have only three stamina.

The people in America gather the plants, and eat the leaves as we do those of the Garden Cress.

22 MENTHA sativa. *Marsh, or Curled Mint. Lin. Sp. pl. 805.*

Mentha crispa verticillata. Baub. Pin. 227.

The

The *Mentha sativa* grows wild by marshes and rivulets. It is a perennial, and creeps much by the roots, as most of the Mints do. The stalks are about half a yard high, square, of a purplish colour, throw out many shoots from the bosoms of the leaves, and are generally bent near their base.

The leaves are oval, serrated, wrinkled, of a pale green, and often curled at their edges.

The flowers are purple, and come out in whorles at the joints of the branches. The whole plant has a very pleasant smell,

23 MENTHA viridis. *Spear Mint. Lin. Sp. pl. 804.*

Mentha angustifolia spicata. Baub. Pin. 227.

The *viridis* too grows naturally by runs of water. This is a taller plant than the former, having a firm, square, upright stalk, two feet or more high, sending out many branches from the bosoms of the leaves.

The leaves are of a lively green colour, long, narrow, sharp pointed, and deeply serrated at the edges.

The flowers stand at the tops of the stalks, in slender spikes, and are of a bright red colour.

Though this is the sort most cultivated for culinary uses, yet to many palates it is far inferior in pleasantness to the former.

They

They are much alike in their virtues, being stomachic and carminative.

24 *OXALIS acetosella.* *Wood Sorrel.*
Lin. Sp. pl. 620.

Trifolium acetosum vulgare. *Baub. Pin.*
330.

The *Oxalis acetosella* is a neat little plant, common in our woods. It hath a slender, creeping, irregular root, hung with many fibres. The leaves rise in little clusters; they are heart-shaped, and are joined by their points three together at the top of a long, weak, reddish foot-stalk, with their broad ends hanging downward. Their colour is a yellowish green, and they are a little hairy.

Among these, and immediately from the root, come the flower-stalks, each supporting a pale flesh-colour, bell-shaped flower, snipped into five segments almost down to the base, and containing ten hairy, erect stamina, and five slender styles.

The leaves of this plant afford one of the most grateful acids of any in nature, far preferable to that of the common garden Sorrel, and therefore is more eligible for mixing with sallads. They are cooling, and serviceable against inflammatory disorders. Beaten with sugar they make an elegant conserve; and boiled with milk form a
most

most agreeable whey, which is good for opening obstructions of the viscera.

25 *POTERIUM sanguisorba.* *Burnet.*
Lin. Sp. pl. 1411.

Pimpinella Sanguisorba minor hirsuta.
Baub. Pin. 160.

The *Poterium sanguisorba* is common in chalky grounds, and hilly pastures. It is so frequently cultivated in gardens, that to describe it would be unnecessary; its uses in the kitchen too are generally known. It is counted cordial and sudorific, and on that account is often put into cool tankards. It evidently has an astringent quality, and thereby is serviceable against dysenteries.

26 *PRIMULA veris.* *Cowslips.* *Lin. Sp.*
pl. 204.

Verbasculum pratense odoratum. *Baub.*
Pin. 241.

Linnæus makes the Common *Cowslip*, the great *Oxlip*, and the Common *Primrose*, only variations of one and the same species, but in this he is certainly wrong, as the *Primrose* is evidently a distinct one. They are all too well known to require any descriptions, and their leaves may be used promiscuously. As to their being esculent, they are only so as they enter into composition with other herbs, in the stuffing of meat. From the flowers, indeed, of the
Cowslip

Cowslip a very good wine is made, but it is not equal to that drawn from *Clary*.

27 *RUMEX scutatus*. *Round-leaved Sorrel*. *Lin. Sp. pl.* 480.

Acetosa rotundifolia hortensis. *Baub. Pin.* 114.

The *Rumex scutatus* is a native of Switzerland. It is a perennial, and hath a creeping, fibrous root, which sends forth many leaves on long foot-stalks; these are hollow in the middle like a spoon, and are betwixt the shape of an heart, and that of the head of an arrow.

The stalk rises a foot or more high, set with leaves till near the top, where it breaks into slender spikes of brownish green flowers, containing six stamina and one style each.

The leaves having a very pleasant, acid taste, the plant is frequently raised in our gardens to mix with salad herbs.

28 *RUMEX acetosa*. *Common Sorrel*. *Lin. Sp. pl.* 481.

Acetosa pratensis. *Baub. Pin.* 14.

The *Acetosa* grows very common in our woods and meadows. This too is a perennial, and from a long, yellowish, woody root, sends up a curved, channelled, reddish stalk, about two feet high, consisting of a few joints, with a long, arrow-shaped leaf

at each. The leaves at the bottom of the stalk have long foot-stalks, but those towards the top stand close, and embrace the stalk with their base. At the top of the stalk comes forth a branched panicle of small reddish flowers, resembling those of Dock. There are several wild varieties of this plant.

The leaves have little or no smell, but when chewed have a restraining acid taste. Their medicinal effects are to cool, quench thirst, and promote the urinary discharge. They are frequently mixed with salad herbs the same as the former.

The Irish, who are particularly fond of acids, eat the leaves with their milk and fish; and the Laplanders use the juice of them as rennet to their milk. The Greenlanders cure themselves of the Scurvy with the juice of Scurvy grass and this mixed; and Dr. Boerhaave recommends a decoction of the leaves as an efficacious remedy against inflammatory disorders.

29 SALICORNIA europæa, vel herbacea.
Jointed Glasswort. Lin. Sp. pl. 5.

This is an annual plant, and grows plentifully in the salt marshes, in many parts of England. It varies very much in the nature of its growth, insomuch that different writers on Botany have made three or four different species of it. It hath succulent,
- jointed,

jointed, branched stalks, which in some plants, trail upon the ground, and in others stand upright. The flowers are produced at the ends of the joints, towards the extremity of the branches; these are so small as scarce to be discerned with the naked eye.

This plant is gathered by the country people, and sold about for the true *Samphire*, but it is very different from that plant. (See *Critbnum maritimum*): This, however, makes an excellent good pickle, which renders the cheat the less to be regretted. They also cut the plants up towards the latter end of summer, when they are full grown, and after having dried them in the sun, they burn them for their ashes, which are used in making of glass and soap. The *Sal Kali* of the shops was formerly drawn from the ashes of this plant only, but now from sundry sorts of herbs. The manner of obtaining the *alkali*, is to dig a hole, and lay laths across it; on these they pile the herbs, and having made a fire under the laths, the herbs are suffered to burn till their liquor drops from them to the bottom of the hole, where it hardens, and turns of a blackish ash colour, retains a sal-tish taste, and is very sharp and corrosive.

30 SCANDIX cerefolium. Common Cber-vil. Lin. Sp. pl. 368.

LEAVES.

111

Charophyllum sativum. *Bauh. Pin.* 152.

The *Scandix cerefolium* is a small annual plant, with winged leaves, somewhat resembling Parsley at first, but of a yellower colour, and generally turning reddish as they grow old.

The stalks are upright, hollow, striated, much branched, swelled in knobs under their joints, and have leaves on them like those from the root, except being divided into narrower segments.

The flowers come out in umbels at the tops of the branches; they are small and white, and are succeeded by longish-oval, shining, sharp-pointed seeds, of a dark brown colour. It is a native of the Austrian Netherlands.

The plant is grateful to the palate, and is much cultivated by the French and Dutch, who are so very fond of it, that they have hardly a soup or salad but the leaves of Chervil make part of it. The ancients had the plant in the highest esteem, and held it capable of eradicating most chronic distempers; it being mild, aperient and diuretic, working without irritation, yet breaking fabulous concretions, and allaying heat in the urinary passages, whereby it proved particularly serviceable in dropsies and the gravel. Some of them have gone so far as to assert, that if these disorders would not yield to a constant use of
this

this plant, they were scarce curable by any other medicine.

31 SCANDIX odorata. *Sweet Cicely. Lin. Sp. pl. 368.*

Myrrhis major, Cicutaria odorata. Baub. Pin. 160.

The *odorata* is a perennial, and a very large plant compared to the former. It has a thick white root, composed of many fibres, which have a sweet, aromatic taste. This sends forth several large, winged leaves, bearing some resemblance to Fern, but they have often white spots upon them.

The stalk rises four or five feet high, is hairy, fistulous, and terminated by large umbels of white flowers, having five irregular petals each. These are succeeded by long, angular, deep-furrowed seeds, which when chewed, have a sweet, aromatic flavour like Anise-Seeds.

The leaves have nearly the same flavour, and are employed in the kitchen as those of the *cerefolium*. The green seeds chopped small and mixed with Lettuce or other cold fallads, give them an agreeable taste, and render them warm and comfortable to the stomach. The plant is a native of Italy.

32 SEDUM reflexum. *Yellow Stone-Crop. Lin. Sp. pl. 618.*

Sedum

Sedum minus luteum, foliis acutis. Baub. Pin. 283.

The *Sedum reflexum* is common upon old walls and rocks, where it creeps much by the roots, sending forth many weak, slender shoots, set all round with succulent, half-round, sharp-pointed leaves. The flower-stalks rise from the sides of these shoots to about nine inches high, and are furnished with leaves like the former, the bases of which turn a little upwards, and are mostly tinged with red.

The stalks are terminated by an umbel of yellow flowers, consisting of five sharp-pointed petals, which stand horizontally in form of a star; and contain ten awl-shaped stamina, with five slender styles each. Before the flowers come out, the rays of the umbel are rolled up in manner of the Ionic volute. There is however a variety (*Sedum minus hæmatoides*) with straight rays.

The plant is cultivated by the Dutch, who mix the leaves amongst their sallads. They have a subastringent taste.

33 *SEDUM rupestre. St. Vincent's Rock Stone-crop. Lin. Sp. pl. 618.*

The *rupestre* grows upon St. Vincent's rock, near Bristol. The first shoots are branched, thickly covered with oblong, fleshy leaves, and lodge upon the ground. Among these rise the stems to five or six

I

inches

inches high, set with awl-shaped leaves, each having a short, loose membrane at its base, which falls off upon being touched. They are of a sea-green colour, and rather rigid.

The flowers terminate the stalks in roundish bunches, and are of the form, and nearly of the colour of the *reflexum*.

This plant too is cultivated by the Dutch, who use the leaves and tender tops as they do those of the former.

34 *SISYMBRIUM nasturtium*. *Water-cress*. *Lin. Sp. pl.* 916.

Nasturtium aquaticum supinum. *Baub. Pin.* 104.

The *Sisymbrium nasturtium* is common in our rivulets and water-ditches, and is so well known and so much in use, that many families in the country have it constantly at their tables two or three months in the year. It is a good diuretic, a powerful resolver of phlegmatic juices, and thereby a sovereign remedy against the scurvy.

35 *SINAPIS alba*. *White Mustard*. *Lin. Sp. pl.* 933.

Sinapi apii folio. *Baub. Pin.* 99.

This grows spontaneously on hedges and the borders of fields. It sends up a branched stalk about two feet high, furnished with rough leaves, deeply jagged down to the midrib.

midrib. The branches are terminated by loose spikes of small yellow flowers, each having four petals placed in form of a cross. These are succeeded by hairy, rough pods, with long, flat beaks. The plant is now much cultivated in gardens, for a salad-herb in the spring.

In regard to its medicinal properties, it is nearly of the nature of the Watercress, and stands recommended as good for exciting the appetite, promoting digestion, attenuating viscid juices, and thereby promoting the fluid secretions.

36 TANACETUM balsamita. *Costmary.*
Lin. Sp. pl. 1184.

Mentha hortensis corymbifera. *Bauh.*
Pin. 226.

The *Tanacetum balsamita*, is a perennial plant, and a native of the southern parts of France and Italy. It hath a creeping fibrous root, which produces many oval, greyish-green leaves, finely serrated at the edges, and standing upon long footstalks.

Among these rise several round, green, branched stems, to above half a yard high, with such leaves thereon as those from the root, but smaller. The branches are terminated by bunches of yellow flowers resembling those of Tansey.

The whole plant has an agreeable smell, which to many is far preferable to any of

the Mints. It was formerly cultivated in gardens for the purpose of mixing with fallads, and it is a pity it is not continued, as from its sensible qualities it seems superior to many aromatic plants now in credit.

37 *VALERIANA locusta*. *Lamb's Lettuce*. *Lin. Sp. pl.* 47.

The *Valeriana locusta* is found wild in fields, on banks, and old walls. It is generally known by being cultivated in gardens under the name, Corn-fallad. The leaves ought to be cut young for fallading, otherwise they have a disagreeable bitter taste. It is a plant that varies much by soil and situation. Linnæus has six varieties of it, yet he has not enumerated them all.

38 *VERONICA beccabunga*. *Brooklime*. *Lin. Sp. pl.* 16.

The *Veronica beccabunga* is frequent in shallow waters, and by the sides of brooks. It hath a long creeping root, which sends clusters of fibres into the mud. From this come several weak shoots, that strike root frequently as they trail along. These are round, of a pale green colour, and spongy substance, as are the stalks, and set at their joints with thick, smooth, oval leaves, about an inch long, standing opposite each other, close to the stalks.

The flowers come out in long, slender
5 bunches

bunches only at the bosoms of the leaves, for the main stems are always terminated by small clusters of leaves, not flowers. Each flower is composed of one fine blue petal, which spreads flat, and is cut at the brim into four unequal segments. In the centre are two stamina and one style, and it is succeeded by a small heart-shaped pod, having two cells.

The leaves are very pungent and bitterish, yet are eaten by many with bread and butter. The plant is in the highest esteem as an antiscorbutic, and is said even to surpass the Watercress; this may not be conceit only, by reason it has the pungency of the latter, and is much more astringent. The juice stands in the first class of the sweeteners of the blood. The country people cure green wounds with no other application than these leaves fresh gathered.

39 *ULVA lactuca.* *Green Laver.* *Lin. Sp. pl.* 1632.

Muscus marinus lactucæ similis. *Bauh. Pin.* 364.

The *Ulvalactuca* is a broad, membranaceous leaf, or rather a collection of such leaves, growing from each other. It is found on rocks and stones in the sea, and often upon oyster-shells, and has some resemblance to curled Lettuce, whence the name *lactuca*. The sailors and inhabitants along the coasts

devour it with great avidity, esteeming it good against the scurvy. It is pleasant to the palate, and gently laxative.

S E C T. II.

Boiling Sallads.

- 1 **A** MARANTHUS oleraceus. *Esculent*
Amaranth.
- 2 Arum esculentum. *Indian Kale.*
- 3 Atriplex hortensis. *Garden Orach.*
—— *hortensis nigricans.* Dark green
Garden Orach.
—— *hortensis rubra.* Red Garden
Orach.
- 4 Anethum fœniculum. *Common Fennel.*
—— *dulce.* Sweet Fennel.
- 5 Brassica oleracea. *Ec. Cabbages.*
- 6 Brassica napus. *Navy or Colewort.* 2
- 7 Chenopodium bonus Henricus. See
Chap. II.
- 8 Cnicus oleraceus. *Round-leaved Meadow*
Thistle.
- 9 Corchorus olitorius. *Common Jew's*
Mallow.
- 10 Crambe maritima. *Sea Colewort.*
- 11 Jatropha maniot. *Cassava.*
- 12 Malva rotundifolia. *Dwarf Mallow.*
- 13 Mentha viridis. *Spear Mint.* See Sect. I.
- 14 Phytolacca

- 14 *Phytolacca decandra.* *American Nightshade.*
- 15 *Ranunculus ficaria.* *Pilewort.*
- 16 *Raphanus sativus.* *Common Radish.*
- 17 *Salvia sclarea.* *Garden Clary.*
- 18 *Spinacia oleracea.* *Common Spinach.*
 — *oleracea glabra.* *Smooth Spinach.*
- 19 *Thea bohea.* *Bohea Tea.*
- 20 *Thea viridis.* *Green Tea.*
- 21 *Urtica dioica.* *Common Stinging Nettle.*

1 *AMARANTHUS oleraceus.* *Esculent Amaranth.* *Lin. Sp. pl.* 1403.

Blitum album majus? *Baub. Pin.* 118.

This is a native of India, and an annual. It sends forth many large, rough, oval, brittle leaves, resembling those of the White Beet, but more obtuse, and snipped at their apex. Among these rises the stalk to much the same height as that of the particoloured *Amaranthus*, and is terminated by a pale, glomerated spike, which is longer than those that terminate the branches. Some few of the flowers have five stamina, but the much greater part have only three.

The leaves of this are boiled in India the same as Cabbage is here. Though Linnæus by his trivial name has pointed this species out in particular for an esculent one, yet the leaves of several others of the genus are also eaten.

2 ARUM esculentum. *Indian Kale,*

This having been described in the first division, it remains only to observe here, that the Indians boil the leaves as a salad, and esteem them very wholesome.

3 ATRIPLEX hortensis. *Garden Orach.*
Lin. Sp. pl. 1493.

This is an annual, and a native of Tartary. It hath almost triangular, obtuse pointed leaves, standing opposite, on long, slender footstalks. These are generally covered at their base with a mealy dust, as is the upper part of the stalk also. It was much cultivated in the English gardens formerly, but now its place is chiefly supplied by *Spinach*. The French, however, still esteem it, and there are some palates among us that prefer it to *Spinach*. It is of a cooling, laxative nature, and an excellent salad for those of a costive habit of body. The names of its varieties are sufficient descriptions of them.

4 ANETHUM fœniculum. *Fennel.* *Lin. Sp. pl. 377.*

Fœniculum dulce. *Baub. Pin. 147.*

This is frequently found wild in many places; nevertheless it certainly is not a native here, but was originally brought hither from Spain or Germany. The use of its leaves is too well known in the kitchen to have any thing said about it. In regard
to

to the virtues of the plant, it is of a warm active nature, and good to expel flatulencies. The variety, called sweet *Fennel*, differs much from the common, its leaves being larger, and slenderer, its stalks shorter, the seeds longer, narrower, of a lighter colour, sweet, and mostly bent inwards.

This last is greatly cultivated in Italy and Germany, whence the seeds are imported.

5 *BRASSICA oleracea, &c. Cabbages.*

Cabbages of all kinds are supposed to be hard of digestion, to afford but little nourishment, and to produce flatulencies; but they seem to have this effect only on weak stomachs, for there are many who will feed heartily upon them, and feel none of these inconveniencies. Few plants run into a state of putrefaction sooner than these, and therefore they ought to be used when fresh cut. In Holland and Germany they have a method of preserving them, by cutting them in pieces, and sprinkling salt and some aromatic herbs among them; this mass is put into a tub, where it is pressed close, and left to ferment, and then it is called *Sour Crout*. Thus managed it is sent on ship-board in barrels, and proves a refreshing dish to the sailors; or at least, it is certainly the means of keeping them from the scurvy.

6 *BRASSICA*

6 *BRASSICA napus*. *Colewort*. *Lin. Sp. pl.* 931.

Napus sylvestris. *Baub. Pin.* 95.

This is a biennial plant, and is frequently found wild in corn-fields. It hath a long white root, which sends forth several pale green jagged leaves. Among these rises the stalk, to three or four feet high, irregularly set with lance-shaped leaves, slightly notched at their edges, having broad bases embracing the stem. The flowers are yellow, stand in tufts at the extremities of the branches, consist of four petals each, and are succeeded by long pods.

There are many varieties of this plant cultivated in gardens for winter and spring sallads, and are called Collets or Coleworts*. In some counties whole fields are sown with Navew as feed for cattle, or for the seed; for it is from these seeds that the Rape oil is drawn. All domestic fowls, and several wild ones, especially pheasants and partridges, are very fond of these seeds, and will destroy a great part of a crop, unless it be well guarded.

8 *CNICUS oleraceus*. *Round-leaved Meadow Thistle*. *Lin. Sp. pl.* 1156.

* These sorts of Coleworts are now almost banished by the gardeners, and instead thereof they sow the seeds of the *Yorkshire* or *Sugar-leaf Cabbage*, calling the young plants thus raised, Coleworts, though very improperly.

Carduus

Carduus pratensis latifolius. *Baub. Pin.* 376.

This plant is a native of the northern parts of Europe, where the inhabitants boil the leaves as we do Cabbage. It is a perennial, and sends forth large oblong leaves, deeply cut at their edges into various segments, which are serrated, and furnished with whitish green, tender spines. The stalk rises three or four feet high, breaking into branches, which are set with leaves, at whose bosoms the flowers are produced on long peduncles. These are composed of all hermaphrodite florets, surrounded by green, prickly scales, which are nipped up. The seeds stand singly upon a flat, hairy receptacle, and are crowned with a feathery down.

9 *CORCHORUS olitorius.* *Common Jews Mallow.* *Lin. Sp. pl.* 746.

Corchorus Plinii. *Baub. Pin.* 317.

This is an annual, and a native of Asia, Africa, and America. It rises with a round, striated, upright, branched stalk, to near two feet, which is furnished with leaves differing in shape; some being oval, some cut off straight at their base, and others almost heart-shaped. They are of a deep green colour, and have a few teeth on the margins of their base, that end in bristly, reflexed, purplish filaments. The flowers
come

come out at the sides of the branches, opposite to the leaves; they stand singly on very short peduncles, are composed of five small yellow petals, and a great number of stamina, surrounding an oblong germen, which becomes a long, rough, sharp-pointed capsule, opening in four parts, each filled with greenish, angular seeds.

This plant is sown by the Jews about Aleppo, and is therefore called *Jews Mal-low*. The leaves are a favourite salad among these people, and they boil and eat them with their meat.

10 CRAMBE *maritima*. *Sea Colewort*,
Lin. Sp. pl. 937.

Brassica maritima monospermos. *Baub.*
Pin. 112.

This grows naturally on the sea coast in many parts of England. It hath a long, thick, creeping root, divided into various fibres, and sends up several spacious, nearly oval leaves, much jagged on their edges, of a greyish green colour, and fleshy substance. In the centre of these rises a round, whitish, upright stalk, two feet or more high, dividing near the top into a few branches, having a few sessile, oval leaves. The branches are terminated by loose bunches of small white flowers, composed of four petals each in form of a cross, and containing six stamina, two of which are shorter than

than the rest, and one style. These are succeeded by roundish capsules, about the size of peas, each including one round seed.

The radical leaves being green all the winter, are cut by the inhabitants where the plants grow, and boiled as Cabbage, to which they prefer them.

11 *JATROPHA* maniot. *Cassava.*

The *Jatropha maniot* has been described in the first Chapter; its name is repeated here, by reason the leaves are boiled and eaten by the Indians, in the same manner as *Spinach* is by us.

12 *MALVA* rotundifolia. *Dwarf Mallow.*
Lin. Sp. pl. 969.

Malva sylvestris, folio subrotundo. *Baub.*
Pin. 314.

This is a small sort of *Mallow*, that grows by old walls, and rude, uncultivated places. From a long white root it sends forth a cluster of pale green, roundish leaves, having long footstalks, and are coarsely crenated on their edges. Among these issue many long, slender, prostrate stalks, plentifully furnished with such-like leaves, standing irregularly on them. The flowers come out at the footstalks of the leaves, and also at the ends of the branches, on bending peduncles, and each is composed of one pale flesh-coloured petal, cut into five segments down
to

to the base, including many stamina united below in form of a cylinder.

The leaves of this plant were formerly in great esteem as a salad that would abate heat in the bowels, and obtund acrimonious humours; but at present it is totally neglected.

14. PHYTOLACCA decandra. *American Nightshade.* *Lin. Sp. pl.* 631.

This grows naturally in the province of Virginia, in America. It hath a thick, fleshy, perennial root, divided into several parts as large as middling Parsneps. From this rise many purplish, herbaceous stalks, about an inch thick, and six or seven feet long, which break into many branches, irregularly set with large, oval, sharp-pointed leaves, supported on short footstalks. These at first are of a fresh green colour, but as they grow old they turn reddish. At the joints, and divisions of the branches, come forth long bunches of small bluish-coloured flowers, consisting of five concave petals each, surrounding ten stamina and ten styles. These are succeeded by round depressed berries, having ten cells, each of which contains a single smooth seed.

In Virginia and other parts of America the inhabitants boil the leaves, and eat them in the manner of Spinach. They are said to have an anodyne quality, and the juice
of

of the root is violently cathartic. The Portuguese had formerly a trick of mixing the juice of the berries with their red wines, in order to give them a deeper colour; but as it was found to debase the flavour, the matter was represented to his Portuguese Majesty, who ordered all the stems to be cut down yearly before they produced flowers, thereby to prevent any further adulteration.

15 *RANUNCULUS ficaria*. *Pilewort*. *Lin. Sp. pl.* 774.

Chelidonia rotundifolia minor. *Baub. Pin.* 309.

This is a perennial plant, and to be met with on moist banks and in meadows. It has a root composed of many little tubercles suspended by fibres; which tubercles somewhat resemble the outward piles, hence the name of the plant. The leaves are triangular, heart-shaped, of a fine glassy green, streaked in the middle with blackish and whitish lines. The flower-stems rise four or five inches high, having many leaves at their base, and each is terminated by one yellow flower, consisting of several narrow, sharp-pointed petals *, surrounding a great many stamina and styles. These flowers make no little part of the variegated covering of meadows and moist pastures in the spring.

* These are subject to vary, they being roundish in some plants, and in such the leaves are mostly obtuse-angled.

There

There is a variety of this plant in gardens with a double flower.

The leaves being of a soft mucilaginous nature, are boiled and eaten by some people as a sallad, and are deemed good against the piles and heat in the fundament.

16 *RAPHANUS sativus.* *Common Radish.*

The leaves of this are often boiled as a sallad, and if they be young and tender, they eat very agreeably.

17 *SALVIA sclarea.* *Garden Glary.* *Lin. Sp. pl.* 38.

Horminum Sclarea dictum. *Baub. Pin.* 228.

This is a biennial, and a native of Italy, but it has possessed a place in the English gardens for a long time. The root is fibrous, and sends forth several large, whitish green, oblong, heart-shaped leaves, which are much wrinkled, serrated on their edges, and hairy on their surfaces. The stalks are square, hairy, greatly branched, sometimes a little clammy, two or three feet high, and set at their joints with pairs of leaves like those from the root, but smaller. The branches stand opposite, and are terminated by long spikes of pale blue flowers, placed in whorls, with two whitish concave, acute pointed leaves under each. The flower-cup is divided into two lips, the upper one ending in three spiculæ; and the under one in

two.

two. The flower also has two lips; the upper one is erect and arched; with one style nearly of the same length under it; and two stamina that are shorter. The lower lip is cut into three segments. Every part of the plant emits a very strong scent.

The fresh leaves dipped in milk, and then fried in butter, were formerly served up at table as a delicate salad. Some people too boiled them as a pot-herb. The plant used any way is counted excellent against hysterical disorders. Of the different parts of it a wine is made, which is a high cordial, and not to be equalled by any other home-made wine. The following is the most approved Recipe for making it.

To five gallons of cold water, put four pounds of Lisbon sugar, and the whites of three eggs well beaten; boil these together gently about an hour, then skim the liquor, and when it is almost cold, add of the small Clary leaves and the tops in blossom, one peck, and also half a pint of ale yeast. This done, put the whole into a vessel, and stir it twice a day till it has done working, then stop it close for eight weeks. After the expiration of this time draw it into a clean vessel, adding to it a pint and half of good Brandy. In two months it will be fit to bottle.

18 SPINACIA oleracea. *Spinach. Lin. Sp. pl.* 1456.

Lapathum hortense five spinacia femine spinoso. *Baub. Pin.* 114.

Lapathum hortense five spinacia femine non spinoso. *Baub. Pin.* 115.

This is an annual, and is too well known to require any description. What particular country it is a native of is not certain, but it is known to have been cultivated in England more than two hundred years. It hath sagittated leaves and prickly seeds. Linnæus makes the smooth-seeded *Spinach* only a variety of this, though it differs as much in the leaves as in the seeds, those of the latter being egg-shaped. This last is the sort now chiefly cultivated for the kitchen, but it is a much more tender plant than the former. *Spinach* is a good salad for those of a costive habit of body, as it obtunds the acrimony of the bowels, and gently relaxes them.

19 THEA bohea. *Bohea Tea. Lin. Syst. Nat.* 365.

It must be owned that neither *Tea* nor *Coffee* can with strict propriety be placed under any of these divisions, because neither the leaves of the one or the berries of the other can be truly called esculent; yet to have entirely omitted them would have caused a sort of chasm in the work, by reason
the

the infusions of both are constantly mingled with our daily food. The leaves of Tea, however, are often eaten by the poorer people after they have been infused; but this is a practice not to be recommended, as they can afford no nourishment, and do certainly much injure the stomach, and the whole nervous system.

The *Bohea* is a shrub that rises about six or eight feet high, and divides into many irregular branches, which are furnished with oval, smooth, glossy, serrated leaves, standing singularly on short footstalks. These are from two to three inches long, one broad, with prominent veins on their under sides, and end in snipped obtuse points. The flowers come out at the bosoms of the leaves, on club-shaped peduncles, more than half an inch long; they consist of six white roundish, concave petals each (two of which are less than the rest), including two or three hundred stamina, surrounding a very short style, crowned with three long, recurved, awl-shaped stigmata. When the flower is fallen, the germen swells to a sort of triangular capsule, composed of three globular cells united, each containing one hard, roundish seed, of a woody texture. The shrub is a native of China and Japan.

20 *THEA viridis.* *Green Tea.* *Lin.*
Syst. Nat. 365.

K 2

This

This differs in nothing from the former, but that the flower is composed of nine petals, and the other of but six.

I have here given the *Thea* as it stands in the *Systema Naturæ* of Linnæus; but tho' this learned Botanist makes two distinct species of it, yet it is highly probable that all the sorts of *Tea* are gathered from one and the same species, and that the nine petals in the flower is merely accidental. As to the great differences found in the taste, smell, and colour of the various kinds, when they are fit for sale, these may be occasioned by the different ages of the leaves, the time of collecting, the manner of curing them, by some vegetable liquid they may be sprinkled with, or the soil and situation the trees may grow in.

In regard to the medicinal virtues of *Tea*, some authors make it little better than a poison, whilst others think it the most wholesome and salubrious vegetable on earth. A very superficial examiner will perceive it to be refreshing and exhilarating, and that it is excellent for carrying off the effects of a debauch; but notwithstanding these good qualities, an immoderate use of it will be found to bring on a train of the worst of nervous complaints; and in some tender constitutions even a cup or two is seen to throw them into tremors and spasmodic affections. The green *Teas* seem to bring
on

on these bad effects sooner than the boheas, but the finer either sort is, the more its pernicious consequences are to be dreaded.

21 URTICA dioica. *Common Stinging Nettle.* *Lin. Sp. pl.* 1396.

Urtica urens maxima. *Baub. Pin.* 232.

It is a common practice now, among the ordinary people, to gather the leaves and young shoots of the common *Stinging Nettle* in the spring, and boil them for a sallad; and if the better sort were to follow their example, they might often find a benefit by it. These leaves are not unpleasant to the palate, are an excellent antiscorbutic, and powerful against all cutaneous eruptions. I have known some instances where they have been used in this manner once a day, by those all covered with blotches, and in a month's time their skins have become perfectly smooth, and free from any deformity. The roots are in high esteem for stopping the spitting of blood, and bloody urine. These are very diuretic, and a decoction of them drank frequently is said to be so powerful, as to break the stone in the bladder.

S E C T. III.

Pot-berbs.

- 1 **A**PIUM graveolens. *Celery*. See the first *Chap.*
- 2 Apium petroselinum. *Parsley*. See Ditto.
- 3 Allium porrum. *Leeks*.
- 4 Brassica oleracea. *Cabbages*. See the former *Sect.*
- 5 Beta vulgaris alba. *White Beet*.
- 6 Chrithmum maritimum. *Rock Samphire*.
- 7 Hyssopus officinalis. *Common Hyssop*.
- 8 Oxalis acetosella. *Wood Sorrel*. See the first *Sect.*
- 9 Ocymum basilicum. *Sweet-scented Basil*.
- 10 Origanum majorana. *Common Marjoram*.
 majorana tenuifolia. Fine-leaved Sweet Marjoram.
- 11 Origanum heracleoticum. *Winter Sweet Marjoram*.
- 12 Origanum onites. *Pot Marjoram*.
- 13 Picris echioides. *Common Oxtongue*.
- 14 Rosmarinus officinalis. *Common Rosemary*.

— *Rosma-*

Rosmarinus hortenſis. Garden Roſe-
mary.

15 *Salvia officinalis.* Green and Red Sage.

minor. Tea Sage.

16 *Satureja hortenſis.* Summer Savory.

17 *Satureja montana.* Winter Savory.

18 *Scandix cerefolium.* Common Chervil. }

19 *Scandix odorata.* Sweet Cicely. }

See the firſt Sect.

20 *Sonchus oleraceus.* Common Sow-thiſtle.

21 *Thymus vulgaris.* Common Thyme.

22 *Thymus maſſichinus.* Maſſick Thyme.

3 *ALLIUM porrum.* Leeks. *Lin. Sp.*
pl. 423.

Porrum ſativum latifolium. *Baub. Pin.*

72.

This plant has been ſo long cultivated that its native place of growth cannot be traced. It is undoubtedly the ſame as that mentioned in the xi Chap. of Numbers, where it is ſaid the Iſraelites longed for Leeks in conjunction with Onions. The leaves are much of the ſame nature as thoſe of the latter, and they are yet a conſtant diſh at the tables of the Egyptians, who chop them ſmall and then eat them with their meat. They are in great eſteem too with the Welch, and their uſe as a pot-herb with the Engliſh is well known.

5 The *Beta alba* is only a variety of the
K 4 red

red *Beet*, and is but rarely used now to what it was formerly. It is generally mixed with savory herbs, it being too insipid to impart much flavour of itself. Both the juice and powder of the root are good to excite sneezing, and will bring away a considerable quantity of mucus.

6 *CRITHMUM maritimum*. *Rock Samphire*. *Lin. Sp. pl.* 354

Crithmum, *Fœniculum maritimum minus*. *Bauh. Pin.* 288.

This is a low perennial plant, and grows upon rocks by the sea in several parts of England. It has a spicy, aromatic flavour, which induces the poor people to use it as a Pot-herb. It is also gathered and sold about for the purpose of pickling, and it is in great esteem when thus managed. But it must not be understood here that this is the *Samphire* generally pickled in Norfolk, for that is the *Salicornia europea*, before described. There is another sort of *Samphire* too, commonly sold about the streets and markets for this *Crithmum*, and is generally bought by people not skilled in plants for the true one. This last is the *Inula crithmoides*, (Golden Samphire) which, though it has some little resemblance to the former, yet it is a plant of a quite different nature, and far inferior in flavour when pickled. In order therefore to prevent people

ple being imposed on, I shall here give a particular description of the *Rock Samphire*.

The root of this plant is composed of several tough fibres which penetrate deep into the fissures of the rocks. It sends forth many green, succulent stalks, near half a yard high, ornamented with deep green, winged leaves, composed of three or five divisions, each of which hath three or five small, thick, fleshy lobes, near an inch long, and the base of their common pedicel embraces the main stalk. The flowers are yellowish, and are produced in circular umbels; they are small, consist of five equal petals each, with five stamina of the same length, and are succeeded by seeds like those of Fennel, but they are somewhat larger.

By a proper attention to this description the *Crithmum maritimum* may always be distinguished from the *Inula crithmoides*, by such as are total strangers to the knowledge of plants, for the *Inula* has a flower like that of Flea-bane, and its leaves are linear, except just at the apex, where they spread a little, and end in three jags or teeth. The *Crithmum* may be propagated in gardens, provided it be planted on a gravelly soil, and this would be a certain way to avoid the cheat. The medicinal virtues of this plant are those of removing obstructions of the viscera, and urinary passages.

7. *HYSSOPUS officinalis.* *Common Hyssop.*
Lin. Sp. pl. 796.

Hyssopus officinarum cærulea sive spicata.
Baub. Pin. 217,

This plant grows naturally in several parts of Asia. It is a perennial, and has been so long cultivated in gardens, that it is known by almost every one. It is exceeding grateful to the smell, and stands recommended against asthmas, coughs, and all disorders of the breast and lungs, whether boiled in soups or otherwise used. There is a distilled water made from it kept in the shops, which is deemed a good pectoral.

9 *OCIMUM basilicum.* *Sweet-scented*
Basil. Lin. Sp. pl. 833.

Ocimum caryophyllatum majus. *Baub.*
Pin. 226.

This is an annual, and a native of Persia; since it has been cultivated in Europe, it has produced many varieties. The hairy *Basil*, which is that commonly sown in gardens, seems to be no other than one of these varieties, though made a distinct species by Miller and others. This sort rises near half a yard high, sending out branches by pairs in opposite directions; these, and also the main stems, are hairy and four square. The leaves are oval, indented about their edges, and end in a sharp point. The flowers are of the lip kind, are white, and terminate

terminate the stalks and branches in long spikes. The stamina are four, two longer than the other, and the seeds lie naked at the bottom of the calyx. The whole plant has a strong smell of Cloves.

The French are so infatuated with the flavour and qualities of it, that its leaves come into the composition of almost all their soups and sauces.

IO ORIGANUM majorana. *Summer Sweet Marjoram. Lin. Sp. pl. 825.*

Majorana vulgaris. *Baub. Pin. 224.*

The natural country of this is not known. It is an annual, and hath oval, obtuse leaves, and almost round, hairy spikes. As it lives only one Summer, it will be best to distinguish it by the name of *Summer Sweet Marjoram*, the better to contrast it with the following, which is called *Winter Sweet Marjoram*.

II ORIGANUM heracleoticum. *Winter Sweet Marjoram. Lin. Sp. pl. 823.*

Origanum heracleoticum, Cunila gallinacea plinii. *Baub. Pin. 223.*

This is a perennial, and a native of Greece. It hath long spikes growing in bunches, and flower-leaves as long as the flower-cups. It is hardy, and will live through the winter in the open air in our climate; which

which circumstance is alone sufficient to distinguish it from the former.

12 ORIGANUM *onites*, *Pot Marjoram*.
Lin. Sp. pl. 824.

Majorana major angelica, *Ger. em.* 664.

This too is a perennial, and has been found wild in England. In its general habit it is like the *majorana*, but the stalks are more woody, and furnished with long hairs. The leaves are small, heart-shaped, sharp pointed, on both sides woolly, seldom serrated, and have little or no foot-stalks. The spiculæ come out in clusters, as in the *Common Marjoram*, but they are longer, hairy, and stand three upon a common peduncle, the middle one being sessile, and all the flowers white.

The use of the leaves of all these species is well known in the kitchen, and therefore it will be needless to say any thing about it. They are all warm aromatics, and are often prescribed alone, or in physical compositions. Half an ounce of the tops of the *majorana*, may be infused in a pint of boiling water, and drank occasionally against headaches, asthmas, and catarrhs. The powdered leaves are a good errhine, and are often used for this purpose. The *onites* is not quite so gratefully scented as the *majorana*, but it is frequently ordered in baths for disorders

L E A V E S.

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disorders in the head, and against cutaneous eruptions. This grows plentifully in Syracuse, and also in some parts of Greece.

13 *PICRIS* *echioides*. *Common Ox-tongue*.
Lin. Sp. pl. 1114.

Hieracium echioides capitulis cardui benedicti. *Baub. Pin.* 128.

This is a native of England, is an annual, and may be found on the borders of corn-fields. It sends forth several dark green, oblong oval leaves, having many protuberances on their surfaces, and are thickly set with stiff hairs. Among the leaves rises a round, green, hairy stalk, to about two feet, with a few leaves thereon, and breaking into branches towards the top, which are furnished with small yellow flowers, somewhat like those of the Sow-thistle; these are succeeded by brownish long seeds, crowned with down.

The leaves are frequently used as a Pot-herb, and are esteemed good to relax the bowels.

14 *ROSMARINUS* *officinalis*. *Rosemary*.
Lin. Sp. pl. 33.

Rosmarinus spontaneus, latiore folio.
Baub. Pin. 217.

This shrub grows in prodigious abundance in the southern parts of Europe. It is so common in gardens as to be known by

every one. Many people boil the leaves in milk pottage, to give them an aromatic flavour. The sprigs too are frequently stuck into beef whilst it is roasting, and they communicate to it an excellent relish. With the flowers of this plant is made the much celebrated Hungary water. They are deemed excellent aromatics, and are used in all nervous complaints, that take their rise from too great cold and moisture in the habit of body. They abound with a subtile, penetrating oil, which renders them serviceable in the jaundice and gout.

15 *SALVIA officinalis.* *Green and Red Sage.* *Lin. Sp. pl.* 34.

Salvia major. *Baub. Pin.* 237.

This is a native of Austria, and by being long planted in gardens it comes of two colours, red and green. The small *Tea Sage* too is only a variety of the *officinalis*. This is the sort that is generally made use of for culinary purposes, it being the pleasantest; but for physical intentions, the large kind ought to be chosen; and in most cases the red should have the preference, it being more corroborating than the green, which renders it immediately serviceable in all relaxations of the fibres. The ancients had this plant in the highest esteem, and perhaps not unjustly, for it is certainly an excellent vulnerary, and a great strengthener of

of all the internal parts of the body, and particularly the lungs.

16 SATUREJA hortensis. *Lin. Sp. pl.* 795.

The *Summer Savory* is an annual, and a native of France and Italy. It sends forth several slender erect stalks, near half a yard high, which put forth branches by pairs, and are set with leaves placed opposite; these are stiff, a little hairy, and yield a fine aromattick smell on being rubbed. The most distinguishing mark of this species is, that it has two flowers to every peduncle.

17 SATUREJA montana. *Winter Savory. Lin. Sp. pl.* 794.

This is a perennial, is a more shrubby plant than the former, and it does not rise so high. The leaves are of a dark green colour, and sharp pointed. The flowers are sustained by single diverging peduncles, coming at the sides of the branches. The root is woody, and sends forth green leaves all the winter. It is a native of France.

These two plants give place to none of the European aromatics for pleasantness of smell and flavour, nor yet in their usefulness in the kitchen; for besides being used as Pot-herbs, they are frequently put into cakes, puddings, sausages, &c. They are
warm

warm and discussive, and good against crudities in the stomach.

20 *SONCHUS oleraceus*. *Common Sow-thistle*. *Lin. Sp. pl.* 1116.

This is an annual plant, and a very troublesome weed in fields and gardens. It varies so much in different soils that some of our most discerning Botanists have made several distinct species of it. In some situations the whole plant is smooth, but in others it is rough, prickly on the margins and midribs of the leaves, and also on the peduncles and calyces of the flowers. The stalks are copiously stored with a lactescent juice.

The leaves have little taste, except a slight astringency, yet they are much used in some of the northern parts of Europe as a Pot-herb. They were formerly kept in the shops by the names *Sonchi asper* et *Sonchi levis*, but they had not any known virtues sufficient to support their place there. The whole plant is a favourite food of Rabbits.

21 *THYMUS vulgaris*. *Common Thyme*. *Lin. Sp. pl.* 825.

Thymus vulgaris, folio tenuiore et latiore. *Bauh. Pin.* 219.

The *Thymus vulgaris* grows wild on the mountainous parts of France, Spain, and Italy. This is the broad leaved *Thyme* commonly

monly cultivated in gardens, and therefore is well known.

22 THYMUS mastichinus: *Mastick Thyme*.
Lin. Sp. pl. 827.

Sampfucus, five Marum mastichen redolens. *Baub. Pin.* 224.

This plant grows spontaneously in Spain. It is a perennial; of a tenderer nature than the former, and differs much from it in its general habit, which induced Miller to place it among his *Satureja*. The stalks rise about half a yard high, breaking into slender; woody branches, which are covered with a brown bark, and set with leaves like those of the *vulgaris* in shape, but they are rather larger. The flowers come out in whorls at the tops of the branches, and are surrounded with a greyish wool; they are white, with bristly, denticulated cups.

Both these plants are fine aromatics, and are used in the kitchen for the same purposes as the *Savories*. The dried leaves and tops of the *mastichinus* are said to be powerful against an immoderate flow of the menses. A dram of the powder in a glass of red wine is a dose.

C H A P. IV.

ESCULENT FLOWERS.

1. **C**ALENDULA officinalis. *Common Marigold.*
- 2 Caltha palustris. *Marsh Marigold.*
- 3 Capparis spinosa. *Caper Bush.*
- 4 Carthamus tinctorius. *Safflower.*
- 5 Carlina acaulis. *Dwarf Carline Thistle.*
- 6 Cynara cardunculus. *Cardoon.*
- 7 Cynara scolymus. *Green or French Artichoke.*
 ----- *bortensis.* *Globe Artichoke.*
- 8 Cercis filiquastrum. *Common Judas-tree.*
- 9 Helianthus annuus. *Annual Sun-flower.*
- 10 Onopordum acanthium. *Cotton Thistle.*
- 11 Tropæolum majus. *Indian Cress, or Nasturtium.*
- 12 Tropæolum minus. *Smaller Indian Cress.*

1 CALENDULA officinalis. *Common Marigold. Lin. Sp. pl. 1304.*

Caltha vulgaris. *Bauh. Pin. 275.*

This is so very common in gardens as to make it universally known. It is a native of Spain. The flowers gathered and then dried were formerly in high esteem among house-

house-keepers to boil in soups and pottage. They are deemed cordial, and a refresher of the animal spirits. There are many varieties of this plant raised in gardens, more for ornament than use,

2 *CALTHA palustris*. *Marsh Marigold*.
Lin. Sp. pl. 784.

Caltha palustris, flore simplici, *Bauh.*
Pin. 276.

The *Caltha palustris* is a perennial, and the only plant yet known of the genus. It is very common in our meadows, where it sends forth many large, roundish heart-shaped leaves, slightly crenated on their edges, among which rise round, hollow, green stalks, dividing into three or four branches towards their top, and having a sessile leave at each division. The flower is composed of five large oval, concave yellow petals, surrounding many slender stamina, and several oblong, compressed germina, or seed-buds, which become as many pointed capsules, containing several roundish seeds. It flowers early in the spring, when its yellow flowers are a great ornament to the meadows. There is a variety of it in gardens with a double flower.

The flower-buds of this plant are by many people pickled as Capers, for which they are a good substitute.

3 *CAPPARIS spinosa*. *Caper Bush*. *Lin. Sp. pl.* 720.

Capparis spinosa, fructu minore, folio rotundo. *Baub. Pin.* 480.

This is a low shrubby plant, and a native of Italy. It sends forth woody stalks, which divide into many slender branches, under each of which are placed two short crooked spines, and between these and the branches come out round, smooth leaves, singly upon short foot-stalks. At the insertions of the branches issue the flowers; these are white, and composed of five roundish concave petals each, surrounding a great many slender stamina, and one style longer than the stamina, sitting upon an oval germen, which turns to a capsule filled with kidney-shaped seeds. The flower when fully expanded looks like a single white Rose.

The buds of these flowers are pickled, and annually sent into England, and other places, by the name of *Capers*. They are said to excite the appetite, promote digestion, and to help obstructions of the liver and spleen; but it is probable these valuable qualities proceed more from the ingredients they are pickled in, than from the *Capers* themselves.

4 *CARTHAMUS tinctorius*. *Safflower*.
Lin. Sp. pl. 1162.

Cnicus

Cnicus fativus, five *Carthamus officinarum*. *Baub. Pin.* 378.

This is an annual plant, and a native of Egypt. It sends up a stiff woody stalk, to two feet or more high, breaking into many branches, which are furnished with oval, sharp-pointed, sessile leaves, slightly jagged on the edges, and each jag ending with a sharp spine. The flowers terminate the branches in large, scaly heads. The scales are flat, broad at their base, and taper to a point, where they terminate in a sharp spine. The florets are numerous, funnel-shaped, of a fine saffron colour, and stand up above the scales of the empalement near an inch. They are all hermaphrodite, and are succeeded by white, smooth, oblong seeds, near as large as wheat.

Formerly the common people used to put the dried florets into their puddings, I suppose more to give them a colour, than for any good flavour the flowers communicated; when this was done in large quantities, the puddings proved purgative, whereby the practice is now quite laid aside.

This plant is cultivated in great abundance in Germany, whence the other parts of Europe are supplied with the flowers, which form a great article of trade, they being used in dying and painting. If they be neatly dried, it is difficult to distinguish them from Saffron, but by the smell. The

seeds are kept in the shops, and have been in repute as a good cathartic, but their operation is slow and not always certain.

5 *CARLINA* acaulis. *Dwarf Carline Thistle.* *Lin. Sp. pl.* 1160.

Carlina acaulos, magno flore albo. Baub. Pin. 380.

This *Thistle* grows on the mountainous parts of Italy and Germany. It hath many large whitish green, sinuated leaves, laying on the ground, which are set with small sharp spines round about their edges. In the centre of these comes a large flower-bud, without any stalk, but is surrounded with long, prickly, jagged leaves, adhering to its base. The flower is composed of white, hermaphrodite florets, which are succeeded by roundish, white seeds, crowned with a branched, feathery down.

The central part of the flower is boiled and eaten the same as Artichoke bottoms. The root is kept in the shops; it is of a brown rusty colour, about an inch thick, very porous, so that when cut it appears as if worm-eaten. It has a strong smell, and a bitterish taste, mixed with a slight degree of aromatic. It was in high esteem among the ancients as a diaphoretic.

6 The *Cynara cardunculus*, or *Cardoon*, was described in the second Chapter, among
the

the stalks; I have given it a place here upon the authority of some travellers, who have assured me that the heads are also eaten, but I doubt they mistook the species.

7 *CYNARA scolymus*. *Green or French Artichoke*. *Lin. Sp. pl.* 1159.

Cynara sylvestris latifolia. *Baub. Pin.* 384.

This grows wild in the fields of Italy, and Linnaeus makes the *hortensis* only a variety of it. The latter is that sort which is now chiefly cultivated, by reason the bottoms are more fleshy, and much better tasted than those of the *scolymus*. The use they are put to in the kitchen is so well known, that to say any thing about it will be quite unnecessary.

8 *CERCIS filiquastrum*. *Common Judas-tree*. *Lin. Sp. pl.* 534.

Siliqua sylvestris rotundifolia. *Baub. Pin.* 402.

The *Common Judas-tree* grows in France, Spain, and Italy. It rises with a straight trunk, covered with a reddish bark, to the height of twelve or fourteen feet, dividing towards the top into many irregular branches, furnished with roundish heart-shaped, smooth leaves, having long footstalks. The flowers come out in clusters from all sides of the branches, and sometimes even from

the trunk itself; they are of a bright purple colour, stand upon short peduncles, have five petals each, resembling a pea-bloom, and ten distinct stamina, four of which are longer than the rest, and surround a long, slender germen, which becomes a long flat pod, having one cell, containing many roundish seeds.

The flowers have a sharp, acid flavour, and are not only mixed with sallads to render them more grateful, but are also pickled in the bud, in the manner of Capers.

The wood of this tree is hard, and beautifully veined with black and green. It will take a fine polish, and on that account is converted to many fanciful uses.

9 HELIANTHUS annuus. *Annual Sun-flower. Lin. Sp. pl. 1276.*

Helenium indicum maximum. *Baub. Pin. 276.*

This is a native of America, but is now sown in almost every garden in England, on account of its bold, large, yellow flowers, which make a fine appearance in the autumn. The bottoms of these flowers are very fleshy, and many people dress and eat them, as they do those of the Artichoke.

The seeds of this plant are copiously stored with oil, which may be easily expressed, and is not inferior to that drawn from Olives. The seeds have as agreeable
a flavour

a flavour as Almonds, and are excellent food for domestic poultry.

10 The *Onopordum asanthium*, or *Cotton Thistle*, has been described in a former Chapter; it stands here by reason the bottoms of its flowers are eaten in the manner of those abovementioned,

11 *TROPÆOLUM majus*. *Indian Cress*.
Lin. Sp. pl. 490.

Acriviola maxima odorata. *Boerb. lugdb.*
I. p. 244.

This is a native of Peru, and an annual. It hath weak trailing stalks, which are furnished with smooth, greyish green, almost circular leaves, supported on long footstalks, inserted into their centre. The flowers are produced from the sides of the stalks; they are in some plants of a pale yellow, in others of a deep orange colour, and are of a singular structure, being composed of five petals, the upper two of which are broad, the three under ones narrow, their bases joined together, and lengthened into a spur above an inch long. They include eight declining, awl-shaped stamina, and a roundish, streaked germen, supporting one erect style, crowned by an acute trifid stigma. The germen becomes a furrowed berry, divided into three lobes, each including one striated seed.

12 *TROPÆOLUM minus*. *Smaller Indian Cress*. *Lin. Sp. pl.* 490.

Nasturtium Indicum. *Ger.* 196.

This is a native of Peru and other parts of South America. It differs from the former in the leaves being entire, the other having five obsolete lobes; the petals of the flower of this are sharp-pointed and bristly, those of the *majus* are obtuse. There is a variety of this sort with double flowers. These plants being very ornamental, are now annually sown in most gardens, for they flower a long time, and make a beautiful appearance.

The flowers have a fragrant smell, and a sharp pungent taste, like that of Garden Cresses. In France they are not only used to garnish dishes, but are mixed with Lettuce and other cold sallads, and are esteemed both pleasant and wholesome. The berries have a warm spicy flavour, and make an excellent pickle.

C H A P. V.

ESCULENT BERRIES,

S E C T. I.

Indigenous, or native Berries..*

- 1 **A**RBUTUS uva ursi. *Bearberry.*
- 2 Arbutus alpina. *Mountain Strawberry.*
- 3 Arbutus unedo. *Common Strawberry-tree.*
- 4 Berberis vulgaris. *Common Berberry.*
- 5 Cratægus aira. *White Beam-tree.*
- 6 Cratægus torminalis. *Maple-leaved Service or Sorb.*
- 7 Fragaria vesca, vel sylvestris. *Wood Strawberry.*
 ——— *northumbriensis.* *Northumberland Strawberry.*
 ——— *imperialis.* *Royal Wood Strawberry.*
 ——— *granulosa.* *Minion Wood Strawberry.*
- 8 Fragaria viridis vel pratensis. *Swedish Green Strawberry.*

* A *Berry* is defined by Linnæus to be a pulpy seed-vessel, without a valve, and inclosing several seeds, which have no other covering.

- 9 *Fragaria moschata*. *Hautboy Strawberry*.
 — *moschata rubra*. Red-blossomed
 Strawberry.
 — *moschata hermaphrodita*. Royal
 Hautboy.
- 10 *Fragaria chinensis*. *Chinese Strawberry*.
- 11 *Fragaria virginiana*. *Virginian Scarlet
 Strawberry*.
 — *virginiana coccinea*. Virginian
 scarlet-blossomed Strawberry.
 — *virginiana campestris*. Wild
 Virginian Strawberry.
- 12 *Fragaria chilensis*. *Chili Strawberry*.
 — *chilensis devonensis*. Devonshire
 Strawberry.
- 13 *Juniperus communis*. *Common, or Eng-
 lish Juniper*.
 — *arbor*. Swedish Juniper.
- 14 *Ribes rubrum vel album*. *Red and
 White Currants*.
- 15 *Ribes nigrum*. *Black Currants*.
- 16 *Ribes grossularia*. *Gooseberries*.
- 17 *Rosa canina*. *Dog's Rose, or Hep-bush*.
- 18 *Rubus idæus*. *Raspberry*.
 — *idæus albus*. White Raspberry.
 — *idæus lævis*. Smooth-stalked
 Raspberry.
- 19 *Rubus cæsius*. *Dewberry*.
- 20 *Rubus fruticosus*. *Common Bramble*.
- 21 *Rubus chamæmorus*. *Cloudberry*.
- 22 *Rubus arcticus*. *Shrubby Strawberry*.
- 23 *Vaccinium*

23 *Vaccinium myrtillus*. *Blackworts, or Bilberry.*

24 *Vaccinium vitis idæa*. *Redworts.*

25 *Vaccinium oxycoccos*. *Cranberry.*

1 *ARBUTUS uva ursi*. *Bearberry. Lin. Sp. pl. 566.*

Radix idæa putata et uva ursi. Baub. Hist. I. p. 524.

This plant grows naturally in the northern parts of England. It is a small shrub, rising little more than a foot high, breaking into many branches, which are closely set with smooth, thick, oval leaves, entire on their margins. The flowers are produced in small bunches, near the extremities of the branches; they have an obtuse, quinquefid *, purple calyx, surrounding a pitcher-shaped, white petal, cut at the brim into five teeth, which roll backwards, and contain ten awl-shaped stamina, and a cylindrical style. The germen is roundish, and becomes an oval, or globular berry, having five cells, filled with small, hard seeds.

2 *ARBUTUS alpina*. *Mountain Strawberry. Lin. Sp. pl. 566.*

Vitis idæa foliis oblongis albicantibus. Baub. Pin. 470.

This grows upon the Alps, also in Lapland and Siberia, and has been found too in some parts of England. The branches are

* Cut into five parts.

slender,

slender, and trail upon the ground; these are furnished with oblong, rough, serrated, whitish green leaves. The flowers are produced from the wings of the leaves, upon long, slender peduncles, and are succeeded by berries about the size of black Cherries; these are green at first, red afterwards, and black when ripe.

3 *ARBUTUS unedo*. *Common Strawberry-tree*. *Lin. Sp. pl.* 566.

Arbutus folio serrato. *Baub. Pin.* 460.

This tree grows very plentifully in the woods in Ireland, but is common now in the English gardens, being a very ornamental plant, it having ripe fruit and flowers upon it at the same time; for the flowers blow in the autumn, and the fruit that succeed them hang till the next autumn before they are ripe, when a fresh set of flowers puts forth, and so on. The fruit have an austere, sour flavour, yet they are eaten by the Irish, who are very fond of acids, and are sold in their markets. There are several varieties of this species, but those most commonly cultivated are the red flowered, and the double flowered. The fruit of the two first sorts are not of a delicate flavour, yet they are eaten by the inhabitants where the plants grow naturally.

The leaves of these plants are all astringent, and those of the *uva ursi* have been said

said to do wonders in the gravel. For this purpose half a dram of the powder is ordered in any convenient vehicle once a day.

4 *BERBERIS vulgaris.* *Common Berberry.*
Lin. Sp. pl. 471.

Berberis dumetorum. *Bauh, Pin. 454.*

This is common in hedges in many parts of England, and sends forth several stalks eight or ten feet high; these run into numerous branches, covered with a whitish bark, and are armed with short spines, which generally come out by three at a place. The leaves are egg-shaped, obtuse, finely serrated on the edges, and when chewed have an acid, astringent taste. The flowers are yellow, and are produced in long bunches in the manner of Currants, each consisting of six roundish, concave petals, having two glands fixed to their base, and include six stamina, with two summits fastened on each side their apex. The germen is cylindrical, and turns to an obtuse, umbilicated berry, of one cell, enclosing two cylindrical seeds. There is a variety of this shrub without any seeds in the berries.

These berries have an agreeable acid taste, and on that account they are boiled in soups to give them a tart flavour. They are also pickled for the purpose of ornamenting dishes. In medicine they are chiefly used in conserve, and in this form they are cooling

ing and astringent, good to quench thirst, fortify the stomach, and stop diarrhæas and dysenteries.

5 *CRATÆGUS* *aira*. *White Beam-tree*.
Lin. Sp. pl. 681.

Alni effigie, lanato folio major. Baub.
Pin. 452.

This grows wild in Kent, and some other parts of England. It arrives to the height of thirty feet or more, with a large trunk, that divides upwards into many branches, which spread in the form of a pyramid, the young twigs being covered with a brown bark, sprinkled with a mealy down, and garnished with oval leaves, of a light green colour on their upper side, white on their under, unequally serrated on their edges, and having many prominent veins running from the midrib to the border. The flowers come out in bunches at the extremities of the branches, having mealy peduncles and empalements; the latter are cut into five obtuse segments, sustaining five short, concave, white petals, which spread open, and surround many stamina, and two styles. When the flower falls, the germen becomes a roundish berry, enclosing two oblong hard seeds.

6 *CRATÆGUS* *torminalis*. *Maple-leaved*
Service-tree. Lin. Sp. pl. 681.

Sorbus

Sorbus terminalis et *Cratægus theophrasti*.
Baub. Hist. I. p. 63.

This grows in woods in some parts of England; it is a taller tree than the former, and the young branches are covered with a purplish bark. The leaves are of a bright green on the upper side, a little woolly underneath, are three or four inches broad, and shaped like those of the Maple. The flowers come out in large bunches near the ends of the branches; they are like those of the Pear-tree, but smaller, and are succeeded by fruit resembling large haws.

The fruit of both these species are rough and austere when fresh off the trees, but if kept in the manner of Medlars, they obtain an agreeable acid flavour. Those of the *terminalis* are annually sold in the London markets in autumn.

7 *FRAGARIA vesca*. *Wood Strawberry*.
Lin. Sp. pl. 708.

Fragaria vulgaris. *Baub. Pin.* 326.

Mr. Weston has published a catalogue of six distinct species, and sixty varieties of Strawberries, but Linnæus includes them all under the *vesca*, or Wood Strawberry, of which he has two varieties, viz. the *pratensis*, which is the *viridis* of Weston, and the *chiloensis*.—Besides these two Mr. Weston has the *moschata*, the *chinensis*, and the *virginiana*, which, with the *vesca*, make six

M

distinct

distinct species. I have inserted these six species, with such varieties of them, as Mr. Weston judges most valuable for their fruit, and shall here give a short description of each variety in his own words.

“ The *northumbriensis* (mentioned by Wallis in his Nat. Hist.) is a variety of the common Wood Strawberry, growing naturally in that country; the fruit is red, the shape conic, of the size of a small nutmeg, finer, he says, than the garden kind. They grow about twenty miles west of Newcastle, at the beginning of Golston-burn, on the north side, and on the strand of the brook at Hatfield, by the path to Simon-burn.

The *imperialis* is a curious Strawberry, which was raised from the Alpine, impregnated by the Wood Strawberry. It was procured from Lincolnshire, and it produces abundance of fruit, which in size, colour, and flavour, resemble the Alpine.

The *granulosa* is a fine Strawberry, which, as well as several other varieties, have lately been obtained from seed, by Monsieur Duchesne, one of the most ingenious Botanists of the present age.

8 *FRAGARIA viridis*. *Weston's Botanicus Universalis*. Vol. ii. p. 325.

It grows plentifully on the hills, and in the open fields in Sweden, and is later than the Wood Strawberry. The flesh is firm,
green,

green; and resembles the Nectarine in flavour. The plant is rather low; and remarkable for loosing all its leaves in the winter.

9 FRAGARIA moschata. *Weston's Botanicus Universalis. Vol. ii. p. 325.*

——— *moschata rubra.* This beautiful variety flowered with me last year, and is perhaps the same as that entitled by Jonequet, in his Index Onomasticus, page 49, *Fragaria Americana hirsuta, flore rubro odore moschi.*

——— *moschata hermaphrodita.* This most curious Strawberry has been lately raised from seeds, and merits the preference on account of its being hermaphrodite. There are also several other varieties of the Hautboy, differing in shape, colour and taste.

10 FRAGARIA chinensis. *Weston's Botanicus Universalis. Vol. ii. p. 325.*

The seeds of this have been lately brought to Europe; and the plant is now first raised in the royal gardens at Trianon, but as yet it is too young to produce fruit.

11 FRAGARIA virginiana. *Weston's Botanicus Universalis. Vol. ii. p. 326.*

——— *virginiana coccinea.* This un-

common variety is said to be growing at Worb, in Switzerland.

——— *virginiana campestris*. This was introduced into England by Mr. Young, Botanist to his Majesty, in 1772.

12 FRAGARIA chilensis. *Weston's Botanicus Universalis*. Vol. ii. p. 326.

——— *chilensis devonensis*. This was lately brought from abroad by a curious gentleman, in Devonshire, and first cultivated in the gardens there. The fruit is very large, firm and high-flavoured, in colour nearly approaching to that of the Scarlet Strawberry, and what is extremely singular, it bears best without any cultivation, and let run wild, except taking off a few of the runners when in bloom. Nor does it want to be renewed or transplanted like all the other Strawberries, but will continue fruitful for many years in the same bed."

No English fruit can stand in competition with Strawberries for wholesome and salubrious qualities; even their smell is refreshing to the spirits, and eaten any way they are delicious. Nor is an immoderate use of them attended with any bad consequences, as is the case with Plums, and many other sorts of fruit. They abate heat, quench thirst, promote urine, and are gently laxative. Those afflicted with the gout have found great benefit by eating plentifully of

them;

them; and Hoffman says, he has known consumptions cured by them. So wholesome and pleasant a fruit can never be too generally cultivated.

The leaves of these plants are moderately astringent, and are often used in gargarisms for sore mouths, quinsies, and ulcers in the throat.

13. JUNIPERUS communis. *Common Juniper.* Lin. Sp. pl. 1470.

Juniperus vulgaris fruticosa. Baub. Pin. 488.

The common *Juniper* grows naturally in several parts of England, but is frequently planted in gardens, which makes it generally known. The *Juniperus arbor*, or Swedish Juniper, is only a variety of it, though it grows three times as large.

The Swedes make an extract from the berries of this tree, which they generally eat with their bread for breakfast, as we do butter. Of the tops of the branches of the Canadian pitch-tree, and Juniper-berries, a very good and wholesome wine is prepared.

The ancient physicians entertained an opinion of the extraordinary qualities of this tree, that fell little short of enthusiasm, and held themselves capable of curing almost every disease incident to the human body, by some preparation or other of the *Juniper*, as any one may see by casting his eye into

Gerard, Parkinson, and others. Though it is evident they greatly magnified its virtues, yet it is also certain that it is a tree of vast utility, as there are several excellent preparations from it still in use; as the rob, the essential oil, and compound water of the berries. The oil is very bitter, and will effectually kill worms. The wood and rosin are used, but the berries are supposed to contain the whole virtues of the tree; they fortify the stomach, dissipate wind in the bowels, and are said to be effectual against epidemical infections. The growth of these trees ought to be encouraged near dwellings, as the perspirable matter that flows from them is certainly a means of purifying the air, rendering it balsamic, and consequently salubrious.

14 *RIBES rubrum vel album.* *Lin. Sp. pl.* 290.

Ribes vulgare acidum. *Baub. Hist.* ii. p. 97.

The *Red Currant* grows naturally in Sweden, and other northern parts of Europe. The white Currant is only a variety of it, and was at first accidentally produced by culture. The fruit of this shrub are known by all to be grateful and cooling to the stomach, to quench thirst, and that they may be eaten in considerable quantities without danger. The jelly made with sugar

and the juice of this fruit is used many ways at table, and is an excellent medicine for cooling the mouth in fevers.

15 RIBES nigrum. *Black Currant. Lin. Sp. pl. 291.*

Grossularia non spinosa, fructu nigro. *Baub. Pin. 455.*

This is a native of England, and is common by the edges of brooks, and in moist woods. The berries are commonly called *Quinancy-berries*, from their supposed excellence against the Quinsy. A Rob is made of them, which is frequently administered for this disorder. Though they are rough and astringent, yet fresh off the bush they prove laxative to many constitutions, and are often eaten for this purpose.

16 RIBES grossularia. *Gooseberry. Lin. Sp. pl. 291.*

The *Gooseberry* is a native of the north of Europe. There is scarce any fruit capable of more improvement than this, nor any attended with less expence in the cultivation. To enumerate its varieties would be quite tedious, and almost impossible, for catalogues have been published of near a hundred, and every year is producing new ones. Some of these varieties are equal in flavour to the most esteemed wall-fruit.

17 *Rosa canina. Dogs Rose. Lin. Sp. pl. 704.*

Rosa sylvestris vulgaris, flore odorato incarnato. Baub, Pin. 483.

The *Dogs Rose* is known to every one, by being so common in woods and hedges. These berries when mellowed by the frost have a very grateful acid flavour, which tempt many to eat them crude from the bush; but this is a bad practice, for the seeds are surrounded by a hairy, bristly substance, which if swallowed with the pulp, will, by pricking and vellicating the coats of the stomach and bowels, many times occasions sickness, and an itching uneasiness in the fundament. To avoid this therefore the pulp should be carefully cleansed of this matter before eaten. There is a conserve of Heps kept in the shops, which is deemed good in consumptions and disorders of the breast; and in coughs, from tickling defluxions of rheum.

Notwithstanding what has been observed of the bad effects often attending the swallowing that bristly matter found in Heps, yet it is probable this substance might be turned to advantage in some disorders, if judiciously managed; for it is nearly of the same nature to the celebrated *Cow-itch*, so much in use among the Indians for killing of worms, and which they scrape off the pods of the *Dolichos urens*. Their manner
of

of giving the *Cow-itch*, is to mix a small quantity of it with syrup or honey, and then eat it for two or three succeeding mornings fasting; this done they take a dose of Rhabarb, and if there be worms it seldom fails to bring them away. It is plain from this that the creatures receive their death by being stung and pricked with the *Cow-itch*; and if this matter were given in the same manner, why should it not have the same effect? as it is much of the same prickly, stinging nature.

18 *RUBUS idæus. Raspberry. Lin. Sp. pl. 706.*

Rubus idæus spinosus. Baub. Pin. 479.
This is a native of our woods, whence it was transplanted into gardens, where it has produced some varieties, among which is that with white fruit. These fruits have a fine fragrance, but are inferior to the Strawberry in flavour. A syrup is prepared from them, and kept in the shops; this is prescribed in gargarisms, and is accounted good against vomiting, and laxity of the bowels.

19 *RUBUS cæsius. Dewberry. Lin. Sp. pl. 706.*

Rubus repens, fructu cæsius. Baub. Pin. 479.

This too is common in our woods, and has some resemblance to the common Bramble, but the stalks are more weak and trailing,

ing, and the whole plant is smaller. It may easily be distinguished from the common Bramble by its fruit being not so large, composed of fewer knobs, and their being covered with a blue flue, like plums. These fruit have a very pleasant taste, and steeped in red wine are said to communicate to it a most agreeable flavour.

20 *RUBUS fruticosus.* *Common Bramble.*
Lin. Sp. pl. 707.

Rubus vulgaris, five *Rubus fructu nigro*.

Baub. Pin. 479.

The *Bramble* is so common that it is known by every child. There are two varieties of it; one with white fruit, and another with a white double flower. The berries of this shrub are eaten in abundance by children, but they often receive a deal of hurt from them; they being apt to swell the stomach, and cause great sickness, if eaten in any large quantities.

21 *RUBUS chamæmorus.* *The Cloud-berry.* *Lin. Sp. pl.* 708.

Chamæ Rubus foliis ribes. *Baub. Pin.* 480.

This grows wild in Westmoreland, and some other places in England; but in Norway and Sweden it is very plentiful. It is a small perennial plant, seldom rising more than eight inches high. The stalks are weak, without

without spines, and mostly garnished with two or three leaves, nearly the shape of those of the Currant. Each stalk is terminated by one purplish flower, which is succeeded by a blackish berry, somewhat resembling that of the Dew-berry.

These berries form an article of trade among the Norwegians, for they collect great quantities of them, and send them annually to the capital of Sweden, where they are served up in deserts at table. They are a favourite fruit too with the Laplanders, who, that they may have recourse to them at all seasons, bury them in the snow, and thus keep them from one year to another.

The plant is male and female in distinct stems, and is perhaps one of the most singular in nature, for the late Dr. Solander observed, that the male was joined to the female under ground, where they were united into one plant by their creeping roots.

22. *RUBUS arcticus.* *Shrubby Strawberry.*
Sp. pl. 708.

This is a small perennial plant, and grows on the mossy-bogs of Norway, Sweden, and Siberia. It sends forth a few trifoliate leaves, like those of the Strawberry, among which rise the stalks about four inches high, these are without spines, but are furnished with leaves like those from the root, and each is terminated with a
purple

purple flower, formed like the rest of the genus, and succeeded by a red berry, much resembling a Strawberry in smell and flavour.

Linnaeus says this is the most excellent of all our European fruits, both for smell and taste; its odour is of the most grateful kind, and as to its flavour, it has such a delicate mixture of the sweet and acid, as is not equalled by the best of our cultivated Strawberries.

23. *VACCINIUM myrtillus.* Bilberry.
Lin. Spl. pl. 498.

Vitis idæa foliis oblongis crenatis, fructu nigricante. *Bauh. Pin.* 470.

This is a small shrubby plant, and is frequently found in woods and upon heaths. It hath a creeping, woody root, furnished with brown slender fibres. It sends forth many crooked, ligneous, angular, flattish stalks, which are green upward, where they divide into many irregular branches, furnished with oval, serrated leaves, resembling those of the small-leaved Myrtle; these stand alternately, have very short foot-stalks, and each has the rudiment of a leaf at its base. The flowers come out at the bosoms of the leaves, on short peduncles; they consist of one bluish-coloured petal each, snipped at the brim into five sharp-pointed segments, and include eight stamina, tipped with horned summits,

summits, with one style in their centre, crowned with an obtuse stigma. The fruit, are of the size, shape, and colour of small floes, but have a sort of aperture at their apex, and are divided into four cells, containing a few small seeds.

These berries are gathered by the inhabitants where the plants grow, who carry them to market for sale, the buyers making them into tarts and other devices. They are also eaten raw with cream and sugar.

24. *VACCINIUM Vitis-idæa. Redworts, or Whortle-Berries. Lin. Sp. pl. 500.*

Vitis-idæa foliis subrotundis non crenatis, baccis rubris. Baub. Pin. 470.

This is exceedingly plentiful in Scotland, and is to be met with on mountainous heaths in the north of England. It is a smaller plant than the former, and an ever-green. The stalks rise to about eight inches, are branched, and furnished with oval leaves, which are dotted on their under side. These have so much the resemblance of those of the dwarf-box, that they may easily be mistaken for the latter at a small distance. The flowers come out in a racemus at the ends of the branches; they hang nodding, are of a pale flesh colour, and when they fall are succeeded by red berries, about the size of Currants.

These berries have a more grateful acid flavour

flavour than the former, and on that account are more eagerly sought after by the country people, who collect them for the purpose of making them into tarts, jellies, &c.

25. *VACCINIUM oxycoccos.* *Cran-berry.*
Lin. Sp. pl. 500.

Vitis-idæa palustris. *Baub. Pin.* 471.

The *Cran-berry* grows upon moorish bogs in England, and particularly at Lynn in Norfolk, and in Lincolnshire. This is a more feeble plant than the *Vitis-idæa*, the branches trailing upon the moss, and are not thicker than threads. The leaves are oval, about the size of those of Thyme, of a glaucous green on their upper side, but white underneath. The flowers come from the bosoms of the leaves, each standing upon a long peduncle; they are small and red, and are followed by red berries, a little spotted.

These berries are preferred to either of the former. They are collected in large quantities by the country people, who carry them to market-towns for sale. They are either made into tarts, or eaten raw with cream and sugar. If they be a little dried and then stopped close in bottles, they may be preserved sound from year to year.

S E C T. II.

Foreign Berries, often raised in Gardens and Stoves.

- 1 **A**NNONA muricata. *Sour Sop.*
- 2 Annona reticulata. *Custard Apple.*
- 3 Annona squamosa. *Sweet Sop.*
- 4 Bromelia ananas. *Pine-apple.*
 — *ananas pyramdato fructu.* *Sugar-loaf Pine-apple.*
- 5 Bromelia karatas. *The Penguin.*
- 6 Cactus opuntia. *Prickly Pear.*
- 7 Cactus triangularis. *True Prickly Pear.*
- 8 Capsicum annuum. *Annual Guinea Pepper.*
- 9 Capsicum frutescens. *Perennial Guinea Pepper.*
- 10 Carica papaya. *The Papaw or Popo.*
- 11 Carica posoposa. *Pear-shaped Papaw.*
- 12 Chrysophyllum cainito. *Star-apple.*
- 13 Chrysophyllum glabrum. *Sapadilla, or Mexican Medlar.*
- 14 Citrus medica. *Common Citron.*
 — *limon.* *Common Lemon.*
 — *americana.* *The Lime-tree.*
- 15 Citrus aurantium. *Common Orange.*
- 16 Citrus ducumanus. *Shaddock Orange.*
- 17 Crateva marmelos. *Bengal Quince.*
- 18 Diospyros

- 18 Diospyros lotus. *Indian Date Plum.*
- 19 Diospyros virginiana. *Pishamin Plum.*
- 20 Ficus carica. *Common Fig.*
 — humilis. *Dwarf Fig.*
 — caprificus. *Hermaphrodite-fruited Fig.*
 — fructu fusco. *Brown-fruited Fig.*
 — fructu violaceo. *Purple-fruited Fig.*
- 21 Ficus Sycomorus. *Sycamore, or Pharaoh's Fig.*
- 22 Garcinia mangostana. *Mangosteen.*
- 23 Morus nigra. *Black-fruited Mulberry.*
- 24 Morus rubra. *Red-fruited Mulberry.*
- 25 Morus alba. *White-fruited Mulberry.*
- 26 Musa paradisiaca. *Plantain-tree.*
- 27 Musa sapientum. *Banana; or small-fruited Plantain.*
- 28 Mespilus germanica. *Medlar.*
- 29 Mammea americana. *The Mammee.*
- 30 Malpighia glabra. *Smooth-leaved Barbadoes Cherry.*
- 31 Malpighia punicifolia. *Pomegranate-leaved Malpighia.*
- 32 Passiflora maliformis. *Apple-shaped Granadilla.*
- 33 Passiflora laurifolia. *Bay-leaved Passion-flower.*
- 34 Psidium pyrifera. *Pear Guava, or Bay Plum.*
- 35 Psidium pomiferum. *Apple Guava.*
- 36 Solanum lycopersium. *Love Apple.*
- 37 Solanum

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- 37 Solanum melongena. *Mad Apple.*
- 38 Solanum sanctum. *Palestine Nightshade.*
- 39 Sorbus domestica. *True Service-tree.*
- 40 Trophis americana. *Red-fruited Bucephalon.*
- 41 Vitis vinifera. *Common Grapes.*
 — *apyrena.* *Corinthian Currants.*

1 ANNONA muricata. *Sour Sop. Lin. Sp. pl. 756.*

Annona foliis oblongo-ovatis nitidis, fructibus spinis mollibus tumentibus obfita. Browne's Jam. 254.

This tree is a native of America. It rises to about twenty feet high, breaking into many branches, which are but thinly furnished with oblong, smooth, lance-shaped leaves, of a shining green colour. The calyx consists of three heart-shaped, sharp pointed leaves, surrounding six heart-shaped petals, three of which are smaller than the rest. The stamina and styles are numerous, but exceeding short. The berry is large, oblong heart-shaped, mostly bent a little near the apex, of a glaucous green colour, and studded with soft pointed spines.

This fruit contains a soft acid pulp, which is generally eaten in feverish disorders, and is deemed a good cooler.

2 ANNONA reticulata. *Custard Apple. Lin. Sp. pl. 757.*

N

ANNONA

ANNONA foliis oblongis undulatis venosis, fructibus areolatis. *Browne's Jam.* 256.

This grows in the same parts of America as the former, but it is taller, and generally reaches the size of a large Pear-tree. The leaves are long, narrow, sharp-pointed, of a light green colour, with several prominent veins running transversely. The flower is composed of six irregular petals, surrounding many very short stamina and styles. The fruit is large, conical, of an orange colour, with a sort of net-work on the surface, and when ripe is full of a sweet, yellowish pulp, like to custard in consistence, which is of a cooling, refreshing nature, and much esteemed by the inhabitants.

3 ANNONA squamosa. *Sweet Sop. Lin. Sp. pl.* 757.

ANNONA foliis oblongo-ovatis undulatis venosis, floribus tripetalis, fructibus mammillatis. *Browne's Jam.* 256.

This is a smaller tree than either of the former, the leaves are broader, and when rubbed have an agreeable smell. The fruit is roundish, scaly on the surface, of a purplish colour when ripe, and full of a luscious sweet pulp, whence the name of *Sweet-Sop*.

4 BROMELIA ananas. *Pine-apple. Lin. Sp. pl.* 408.

Carduus

Carduus brasiliensis, foliis aloës. *Baub.*
Pin. 384.

This is a native of New Spain, and is a very extraordinary plant in the manner of its growth and propagation. The root spreads circularly in the ground, and from its centre sends forth a tough stalk, which is surrounded at the bottom, and for a considerable way up, with long, green, serrated leaves, resembling those of a small Aloe. At the top of the stalk stands the fruit, crowned with a tuft of fine green, sharp-pointed leaves. It has some resemblance on the outside to the cone of a Pine, whence the name of *Pine-apple*. The flowers are produced from the protuberances of the fruit, are funnel-shaped, of a bluish colour, contain six awl-shaped stamina, which are shorter than the petals, and one style each. When the flowers are fallen, the fruit enlarges, and becomes a fleshy, knobbed berry, plentifully stored with an exquisite flavoured juice. The seeds are lodged in the knobs; they are very small, and nearly kidney-shaped. A little before the fruit is ripe, there shoot from the stalk at the bottom of the berry three or four suckers, which if taken off and planted, will in about fourteen months produce fruit. The tuft of leaves also, taken from the top of the berry, if planted, will do the same, but not in so short a time. There are several

varieties of the *Pine-apple*, but the most esteemed ones are the *Queen-pine*, the *Sugar-loaf*, and the *Surinam*.

This fruit may justly challenge all others, except the *Mangosteen*, for the delicate and agreeable variety of its flavour. It should not stand till it is over ripe, and ought to be eaten almost as soon as cut. It has been introduced into England but a little above half a century.

In regard to the medicinal virtues of the *Pine-apple*, it is counted very nourishing, to obtund acrimony, and thereby allay tickling coughs; but Tournefort says, that too liberal an use of them has often been attended with bad consequences, by putting the blood into a violent fermentation; and indeed this is the case with almost all the tropical fruits.

5 *BROMELIA karatas. The Penguin.*
Lin. Sp. pl. 408.

This is a perennial plant, and a native of the Spanish West-Indies. It sends forth a multitude of hard, stiff leaves, standing close to the root, and when fully grown are eight or nine feet high, two or three inches broad, and studded with sharp, hooked spines on their margins. The edges roll inward, in the manner of some of the *Aloes*, by which means they serve as so many gutters to convey the rains and dews to the root.

In

In the centre of this large tuft of leaves, and near the ground, there grows a circular crown, of about a foot diameter, from which comes a cluster of fruit, each when separated much the size of ones finger, but are pointed at both ends, and are quadrangular in the middle, whereby they are so neatly fitted to each other, that they cannot easily be parted, unless thoroughly ripe. They are clothed with a smooth, and almost cream-coloured husk. Within this husk is contained a white pulpy substance, which is the edible part, and if the fruit be not perfectly ripe, it has some small flavour of the *Pine-apple*. The juice is very austere in the ripe fruit, and is made use of to acidulate punch. The inhabitants in the West-Indies make a wine from this fruit, which is very intoxicating, and has a good flavour, but it will not keep long before it runs into a state of putrefaction.

The physical virtues of the *Penguin* are to cool and quench thirst, and a moderate use of them has been found highly serviceable in fevers.

6 CACTUS opuntia. *Prickly Pear. Lin. Sp. pl. 669.*

Ficus indica, folio spinoso, fructu majore. Baub. Pin. 458.

This perennial is a native of Peru and Virginia. It here goes by the name of

Common Indian Fig. The plant in its natural state rises with a thick, strong stem, but being propagated here by setting its leaves in the ground, the whole plant with us is only a series of these leaves, or rather branches, shooting out of the sides and ends of each other. These are of an oval form, compressed, and somewhat resemble flattened, green Figs. The flowers come out at the extremities of the leaves or branches, sitting upon the embryo of the fruit, and are composed of several concave petals that spread open in a double row; they are of a pale yellow colour, and include many stamina, tipped with oblong summits, and one style crowned with a pointed stigma. When the flower falls, the embryo swells to an oblong fruit, about the size of a middling Plumb, of a red purple colour within, of a pale yellow without, is set with small spines in clusters, and contains many small roundish seeds.

These fruits are very pleasant to the palate, and of a cooling nature. Mr. Dampier, who experienced it upon the spot where the plants grew naturally, says, that by eating a few of them the urine will be tinged as red as blood. It has been generally supposed that this is the plant upon which the insect, called *Cochineal*, feeds; but this is a mistake, for that little creature lives on the *Cactus cochinillifer*, so named after the animal.

7 CACTUS triangularis. *True Prickly Pear.* *Lin. Sp. pl.* 669.

CACTUS debilis brachiatus æqualis triquetrus scandens sive repens, spinis brevissimis confertis. *Browne's Jam.* 468.

This grows both in Brazil and Jamaica, and is there planted near their houses for the sake of its fruit. It hath weak, triangular, creeping stalks, which strike root at their joints, and by which they may be trained up to a great height. These divide into many equal branches, almost covered with very short spines in clusters. The flower is composed of a multitude of narrow, sharp-pointed petals, which spread open like those of the Sunflower, and when fully expanded, form a circle of nine or ten inches diameter; but they are of short duration, not lasting more than five or six hours.

The fruit is round, red on the outside, about the size of a Bergamot Pear, of a most delicious flavour, and in great esteem among the inhabitants.

8 CAPSICUM annum. *Annual Guinea Pepper.* *Lin. Sp. pl.* 270.

Piper indicum vulgatissimum. *Baub. Pin.* 162.

The *Annual Guinea Pepper* is a native of America, but on account of the beautiful colour of its pods, or more properly berries, it is now cultivated in almost every garden

in England. It varies prodigiously in regard to the size, form, and colour of its fruit; some being very long, bent and sharp pointed; others are short, obtuse, or heart-shaped, and of other forms. In respect to colour, some are of a fine scarlet, some of an orange, and others of a light yellow. This plant is cultivated greatly in the Caribbee Islands, where the inhabitants, and also the Negroes, use the pods in almost all their soups and sauces, and by reason the slaves are exceedingly fond of them, the whole genus has acquired the name of *Guinea Pepper*.

These pods or berries make an excellent pickle, and there is one variety which Miller says is preferable to the rest for this purpose. His words are: "The pods of this sort are from one inch and an half, to two inches long, are very large, swelling, and wrinkled; flattened at the top, where they are angular, and sometimes stand erect, at others grow downward. When the fruits of this sort are designed for pickling, they should be gathered before they arrive to their full size, while their rind is tender; then they must be slit down on one side to get out the seeds, after which they should be soaked in water and salt for two or three days; when they are taken out of this and drained, boiling vinegar must be poured on them, in a sufficient quantity to cover them, and
closely

glofely ftopped down for two months; then they fhould be boiled in the vinegar to make them green; but they want no addition of any fort of fpiice, and are the moft wholefome and beft pickle in the world," This fort Miller calls *Bell-pepper*.

9 CAPSICUM frutescens. *Perennial Guinea Pepper. Lin. Sp. pl. 271.*

Piper filiquofum magnitudinis baccarum afparagi. Baub. Hift. 2. p. 944.

This is a shrubby plant, and rife four or five feet high, breaking into many branches, furnifhed with narrow, lance-shaped leaves, Like the foregoing, it varies in the form and colour of its fruit; they being oval, roundish, or pyramidal in different plants, and of a yellow or a red colour. Their fize is nearly that of a Barberry. It is a native of the Eaft-Indies, but is much cultivated in the Weft, where they have a variety of it with an oval, red fruit, which they call *Bird-pepper*; the berries of this variety they pickle, but the principal ufe they put them to, is to make the famous *Cayan Butter*, called alfo *Pepper-pot*. In order to this they dry the berries, beat them to a powder; and mixing fome other ingredients among them, the whole is kept and ufed occasionally in their fauces, and is efteemed the beft of all fpiices. Thefe *Pepper-pots* are often
fent

sent to England and other places, and generally meet with an equal approbation.

10 *CARICA* papaya. *The Papaw.* *Lin. Sp. pl.* 1466.

Carica fronde comosa, foliis peltatis; lobis varié sinuatis. *Browne's Jam.* 360.

This tree is a native of both the Indies, also of the Gold-coast of Africa, and is male and female in distinct plants. It sends up a hollow, herbaceous stem, to the height of fifteen or eighteen feet, and about seven inches in diameter. Near the top the leaves come out on all sides the stem, and are supported on long foot-stalks; they are divided into several lobes, which are again cut into many irregular segments. The flowers are produced in loose bunches from the bosoms of the leaves; those of the male are white, funnel-shaped, cut at their brims into five parts, and have ten stamina each, five of which are alternately shorter than the rest. The female flowers are yellowish, and composed of five long, narrow petals, including a very short style, crowned by five oblong stigmata. These are succeeded by fruit of different shapes and sizes; some being angular, and about as big as middling Pears; others are compressed at both ends, and about the size of a small Squash; whilst some are globular, oval, or conical. They contain

contain numerous seeds, which are egg-shaped and furrowed. The fruit, and all the other parts of the tree abound with a milky, acrid juice, which is applied for killing of ringworms.

When the roundish fruit are nearly ripe, the inhabitants of India boil and eat them with their meat, as we do Turneps. They have somewhat the flavour of a Pompon. Previous to boiling they soak them for some time in salt and water, to extract the corrosive juice; unless the meat they are to be boiled with should be very salt and old, and then this juice being in them will make it as tender as a chicken. But they mostly pickle the long fruit, and thus they make no bad succedaneum for mango. The buds of the female flowers are gathered, and made into a Sweet-meat; and the inhabitants are such good husbands of the produce of this tree, that they boil the shells of the ripe fruit into a repast, and the insides are eaten with sugar in the manner of Melons.

The stem being hollow, has given birth to a proverb in the West-India Islands; where, in speaking of a dissembling person, they say he is as hollow as a *Popo*.

II *CARICA posoposa*. *Pear-shaped Papaw*. *Lin. Sp. pl.* 1466.

Carica sylvestris minor, lobis minus divisis,

sis, caule spinis inermibus. *Browne's Jam.* 360.

This is a shrubby tree, and a native of Surinam, in South America. The stem breaks into several branches, furnished with leaves somewhat like those of the former, but the lobes are smaller, and not sinuated. The flowers are of a rose colour, and are succeeded by Pear-shaped fruit, of various sizes, some being near eight inches long, and three thick, and others not above half as large. They are yellow both without and within, and of a sweeter flavour than the common Papaw.

12 CHRYSOPHYLLUM cainito. *Star Apple.* *Lin. Sp. pl.* 278.

Cainito folio subtus aureo, fructu maliformi. *Plum. gen.* 10.

This is a native of the warm parts of America, and grows to the height of thirty or forty feet, dividing towards the top into many slender, pendulous branches, set with entire, oblong-oval, striated leaves, covered with a russet-coloured down underneath, and standing alternately, on footstalks. These, when the sun shines, glister like a gold-coloured satin. The flowers are produced at the extremities of the branches, in large bunches; and each is composed of a small quinquefid calyx, and a bell-shaped petal, cut into five segments at their brims, including

including five awl-shaped stamina, tipped with twin summits, together with one style, crowned with a quinquefid stigma. The germen is roundish, and grows to the size of a small Apple. The fruit is smooth, of a purple colour, and contains four or five black, roughish seeds. There is a variety of this tree with fruit the shape of an olive.

These apples, when fresh off the tree, have an austere, astringent taste; but if laid up some time to mellow they acquire an agreeable flavour, and are much esteemed.

13 CHRYSOPHYLLUM glabrum. *Sapadillo. Lin. Sp. pl. 278.*

This too is a native of America, but is a much smaller tree than the former; the leaves are very smooth on both sides, the flowers are produced at the sides of the branches, and the fruit is about the size of a Bergamot Pear. This contains a white clammy juice, when fresh, but after being kept a few days, it becomes sweet, soft and delicious. Inclosed are four or five black seeds, about the size of those of a Pomkin.

14 CITRUS medica. *Common Citron. Lin. Sp. pl. 1100.*

Malus medica. Bauh. Pin. 435.

The *Common Citron* grows naturally in many parts of Asia. The leaves are broad and stiff, like those of the Laurel, and with-

out an appendage to the footstalks, it being linear. The flower hath a monophyllous calyx, cut into five teeth, and five oblong petals, which expand in the form of a Rose. It hath ten unequal stamina, joined in three bodies at their base, and a cylindrical style; crowned with a round stigma. The getmen is oval, and becomes an oblong fruit, with a thick fleshy rind, and having many cells, containing two oval seeds each. Linnæus makes the *Lemon* and the *Lime-tree* only varieties of this, but both these have generally twelve or more stamina in their flowers, joined in three or four bodies. The varieties now raised by sowing the seeds of these three sorts are almost numberless. They are all excellent fruits, very grateful to the stomach, and proper for allaying drought in fevers. The *Florentine Citron*, (which is a sharp-pointed fruit, bent at the ends, and covered with a warted rind) Miller says, is of such odoriferous smell, and fine flavour, that a single fruit commonly sold at Florence for two shillings.

15 CITRUS aurantium. *The Orange.*
Lin. Sp. pl. 1100.

Malus aurantia major. *Baub. Pin.* 436.

The *Orange-tree* is a native of the East-Indies. The chief specific differences between this and the *Citron* are; the footstalk of the leaf of the *Orange* is winged at its

base, or has an heart-shaped appendage, whereas that of the *Citron* has none, but is all the way of a breadth; the flower of the *Orange* has many more stamina than that of the *Citron*. These trees are ever-greens, and in their native soils have blossoms and fruit the year round. There are many varieties cultivated of the *Orange*; but as they cannot be produced here to perfection, without much expence, I shall forbear setting them down, and only observe that the small *Curassao Oranges*, sold in the shops, are the young fruit of the Seville Orange dried.

16 CITRUS ducumanus. *Shaddock Orange*.
Lin. Syst. Nat. 508.

Malus aurantia fructu rotundo maximo
palescente caput humanum excedente.
Sloane's Jam. 212. *Hist.* I. p. 41.

Linnæus formerly made this only a variety of the *aurantium*, the largeness of the fruit not being a sufficient mark with him to constitute a specific difference; but it has been found that both the leaves and flowers are larger, and that the latter are produced in a racemus, which is a little downy. This plant was brought from the East Indies to the West, where it is now much cultivated, and sometimes produces fruit larger than a man's head, but they are of an harsh flavour, and pale colour, when compared with those
of

of India, the flesh of which is sweet, and of a deep gold colour.

17 *CRATEVA marmelos*. *Bengal Quince*.
Lin. Sp. pl. 637.

Cydonia exotica. *Baub. Pin.* 435.

This is a large tree, and grows spontaneously in several parts of India. It breaks into many branches, armed with long, sharp spines in pairs, and are furnished with trifoliate, oblong leaves, ending in an acute point. The flowers are produced from the sides of the branches, in small clusters of six or seven together, upon a common footstalk, each flower consisting of five acute, reflexed petals, of a green colour on their outside, but white within, surrounding many stamina, which are longer than the petals, and one long, incurved style. The germen is oval, and swells to a roundish fruit, including many kidney-shaped seeds.

The fruit is about the size of an Orange, and covered with a hard bony shell, containing a yellow, viscous pulp, of a most agreeable flavour; this is scooped out, and being mixed with sugar and orange, is brought to the tables of the grandees in India, who eat it as a great delicacy, and also esteem it as a sovereign remedy against dysenteries.

18 DIOSPYROS lotus. *Indian Date Plum.*
Lin. Sp. pl. 1510.

Lotus africana latifolia. Baub. Pin. 447.

This tree grows in Italy, and some other places in the south of Europe, but is supposed to have been originally brought thither from Africa. It rises to a considerable height, dividing towards the top into many branches, which are furnished with oval, sharp-pointed leaves, beautifully variegated on their upper surface. Some trees bear all hermaphrodite flowers, and others produce only male. The hermaphrodite flowers have a lasting calyx, divided into four parts, including a pitcher-shaped petal, with eight stamina, joined to the calyx, and a roundish germen in the centre, supporting a long style, crowned with an obtuse, bifid stigma. The flowers come out in a scattered order upon the branches, and are succeeded by large globular berries, divided into eight cells, each including one long, compressed seed. The male flowers are formed like the others, but want the germen. There is a variety of this tree with narrow leaves.

These Plums are grateful to the palate; they are by many supposed to be the same sort of fruit as those which tempted the companions of *Ulysses*, and with which they were so infatuated, that it was with difficulty they were forced from the trees to their ships.

19 DIOSPYROS virginiana. *Pisbamin Plum.*
Lin. Sp. pl. 1510.

Loti Africanæ similis indica. Baub. Pin.
448.

The trivial name of this speaks it to be a native of Virginia. It is a smaller tree than the former, seldom rising more than fourteen feet, whereas the *lotus* often gets to thirty. This divides near the ground into irregular branches, furnished with long, narrow leaves, of the same colour on both sides.

The fruit of this species are not eatable fresh off the tree, but like Medlars must be kept some time, and then they have a good flavour.

20 FICUS carica. *Common Fig. Lin.*
Sp. pl. 1513.

Ficus communis. Baub. Pin. 457.

The *Fig-tree* is a native of Asia, but is now cultivated almost all over Europe, whereby it is so well known as to need no description. The fructification of the *Fig* is exceedingly curious, and deserves particular notice, for here the parts of generation are contained within the berry, which thereby becomes both a *pericarpium*, and a covered *receptacle* of flowers. The fruit of the *Wild Fig*, called *Caprifiscus*, contains both male and female flowers, on distinct peduncles. The male flowers, which are but few
in

in number, are placed in the upper part of the fruit, each having a trifid calyx, containing three bristly stamina. The female flowers are very numerous, stand upon separate peduncles below the males, and each consists of a quadrifid calyx, having one style. These wild fruits are not eatable, for they never perfectly ripen, but are said to be absolutely necessary for ripening the garden *Fig*, or rather to fecundate it, and prevent its falling off; for the cultivated *Fig* is mostly found to contain female flowers only. The manner of effecting this fecundation, as related by naturalists, and which is called *Caprification*, is briefly as follows:

In the Greek islands, where they cultivate *Figs* for a crop, there grow many *Wild Fig-trees*, in the fruit of which breed small insects of the gnat kind. These little creatures, in their worm state, feed upon the kernels of the fig-seeds, and are nourished in the fruit till they are transformed into flies, when piercing the coats of the *Figs*, they issue forth, copulate, repair to other *Fig-trees*, which are then in flower, and pricking the fruit, enter by the apertures they make, range among the flowers in the inside, and deposit their eggs. Now it is supposed that these gnats bring with them about their bodies the fertilizing dust of the male flowers of the *Wild Figs*, and after

they get an entrance, they scatter it upon the germina of the female flowers of the cultivated ones, and thereby impregnate the seeds, which causes the fruit to stand, and ripen much better and sooner. These effects having been seen to happen upon the intercourse of the gnats with the different trees, put the husbandmen upon a method of rendering them subservient to their own purposes, and *Caprification* is become a main article in the cultivation of *Figs*; for, that the growers may make sure of their crops, they collect these insects, and place them upon the branches of their trees; or they cut off the *Figs* of the wild trees and hang them about their domestic ones, the fruit of which the gnats readily enter, and, as before observed, sprinkle the dust they bring with them upon the female flowers in the inside of these fruits, by which means they become fecundated.

The varieties of the Fig are very numerous, but several of them are not worth cultivating. Those most deserving attention in England are the following :

- | | |
|----------------------------------|-------------------------------|
| 1 The <i>Brown Ischia</i> . | 7 The <i>Brown Naples, or</i> |
| 2 The <i>Black Genoa</i> . | <i>Murrey</i> . |
| 3 The <i>Small White</i> . | 8 The <i>Green Ischia</i> . |
| 4 The <i>Large White Genoa</i> . | 9 The <i>Brunswick</i> . |
| 5 The <i>Black Ischia</i> . | 10 The <i>Long Brown Na-</i> |
| 6 The <i>Malta</i> . | <i>ples</i> . |

The

The *Brown Ischia* is a very large Fig, of a globular form, has a large eye, and is pinched in near the footstalk. It is of a chesnut-brown colour on the outside, purple within, hath large grains, and a sweet, high-flavoured pulp. It ripens early in August, and is subject to burst.

The *Black Genoa* is a longish Fig, with a swelled obtuse top, but is very slender towards the stalk. It is of a black purple colour on the outside, covered with a purple flue; the inside is of a bright red, and the pulp hath a high flavour. Ripe early in August.

The *Small White* is a roundish Fig, with a very short footstalk, and is flattish at the crown. The skin is thin, and of a pale yellow colour when ripe. It is white in the inside, and the flesh is very sweet. In perfection in August.

The *Large White Genoa* is a roundish Fig, a little lengthened toward the stalk. This too is yellowish when ripe, but it is red within. Ripe with the former.

The *Black Ischia* is a middling sized Fig, rather short, and a little flatted at the crown. It is black on the outside, and of a deep red within. The pulp has a rich flavour. It ripens in August.

The *Malia* is a small brown Fig, much flatted at the crown, and greatly pinched in toward the stalk. It is brownish both outside and in. The pulp or flesh is sweet and well flavoured. Ripe with the former.

The *Brown Naples* is a pretty large round Fig, of a light brown colour on the outside, with a few marks of a dirty white. The inside is nearly of the same colour, the seeds are large, and the flesh is well flavoured. Ripe toward the end of August.

The *Green Ischia* is an oblong Fig, but is roundish at the crown. The outside is green, but when

fully ripe has a brownish cast. The flesh is purple, and well flavoured. It ripens with the former,

The *Brunswick* is a pear-shaped Fig, of a large size, of a brown colour on the outside, and of a lighter brown within. The flesh is coarse, and not highly flavoured. Ripe at the beginning of September.

The *Long Brown Naples* hath a long footstalk, and the Fig is a little flattened at the crown. When ripe the skin is of a dark brown colour, the seeds are large, the flesh inclining to red, and is well flavoured. Ripe in September.

In the islands of the Archipelago, where *Caprifigation* is universally practised, they dry their Figs in ovens, to kill the insects and their eggs; this much hurts the flavour of the fruit, but nevertheless they are the chief support of the peasants and monks there, in conjunction with Barley-bread. With respect to the virtues of Figs, they are said to inflame the blood, if eaten fresh off the trees; but dried, they are of an emollient nature, and good in distempers of the breast, and defluxions of rheum upon the lungs.

21 *Ficus sycomorus*, *Pharaob's Fig*. *Lin. Sp. pl.* 1513.

Ficus folio mori, fructum in caudice ferens. *Baub. Pin.* 459.

This is a native of Egypt. It is a large tree, dividing into many spreading branches, plentifully furnished with leaves, shaped like

like those of the Mulberry. The fruit are not produced on the small shoots, but from the trunk and thick branches. They are shaped like those of the common Fig, but are far inferior in flavour, and not much esteemed.

The wood of this tree is but of a spongy nature, yet the ancient Egyptians made use of it for coffins to contain their mummies, some of which are still to be found in their catacombs, or subterraneous burying places, where they are placed upright, and have been deposited more than three thousand years.

22 *GARCINIA mangostana.* *The Mangosteen.* *Lin. Sp. pl.* 635.

Laurifolia javanensis. *Baub. Pin.* 461.

This tree is a native of the island of Java, and is also found in the Molucca Islands. It sends up a straight, tapering stem, to eighteen or twenty feet, having branches coming out on all sides from near the bottom, and continuing to diminish equally in length to the top, whereby they form the tree into a compleat cone. The leaves are long, pointed at both ends, smooth, of a lucid green on their upper side, and of an olive colour on their back. The flower is composed of four almost round petals, nearly resembling the Rose in colour. The calyx is of one piece, and on expanding breaks into four lobes. In the centre of the flower

is one very short style, crowned with an osclifid stigma, and surrounded by sixteen erect stamina, having globular summits. The germen is roundish, and becomes a berry of the size of an Orange, covered with a thick rind, of a brown purple, mixed with a greyish green on the outside, but of a rose colour within, and contains eight hairy, fleshy, angular seeds.

According to the concurring testimonies of all travellers, this fruit is the most excellent flavoured, and the most salubrious, of any yet known; it being such a happy mixture of the tart and the sweet. *Rumphius* says, the flesh is juicy, white, almost transparent, and of as delicate and agreeable a flavour as the richest Grapes. Both taste and smell is so grateful, that it is almost impossible to be cloyed with eating it; and that when sick people have no relish for any other food, they generally eat this with great delight; but should they refuse it, their recovery is no longer expected. It is remarkable too, says he, that this fruit is eaten with safety in almost every disorder. The bark, he adds, is used with success in the dysentery and tenesmus; and an infusion of it is esteemed a good gargle for sore mouths, or ulcers in the throat. The Chinese dyers use this bark for the basis of a black colour, in order to fix it the firmer.

23 MORUS nigra. *Lin. Sp. pl.* 1398.

Morus

Morus fructu nigro. Baub. Pin. 459.

The *Black Mulberry* grows naturally on the coast of Italy. The tree is well known by being frequent in our gardens, nor need any thing be observed in regard to the excellent flavour of its fruit. These furnish the shops with a syrup, which is of a cooling, astringent nature, and is much used in gargarisms for sore mouths.

24 *MORUS rubra. Lin. Sp. pl. 1399.*

The *Red Mulberry* is a native of Virginia. It differs from the common *Black Mulberry* in the leaves being longer and rougher, and in the catkins being cylindrical. When the leaves first expand they are very hairy underneath, sometimes palmated, but oftener trilobed and a little hairy. The catkins are about the length of those of the Birch-tree.

25 *MORUS alba. White Mulberry. Lin. Sp. pl. 1398.*

Morus fructu albo. Baub. Pin. 459.

This differs from the others not only in the fruit being white, but its leaves are obliquely heart-shaped, and smooth. It is a native of China, where it is cultivated more for its leaves than its fruit, for the purpose of feeding Silkworms; but though this is the practice in China, yet it has been proved by experiments, that the leaves of the *nigra* are far preferable for this use, and
that

that the worms which had been fed with the latter, always produced much better filk, than those which were fed with the former. These creatures are more fond of the leaves of the black than of the white *Mulberry*, and if they be kept any time on the white, and then put to the black, they will feed till they burst.

26 *Musa paradisiaca.* *Plantain - tree.*
Lin. Sp. pl. 1477.

Ficus indica, fructu racemoso, folio oblongo. *Baub. Pin.* 508.

The *Plantain-tree* grows spontaneously in many parts of India, but has been immemorially cultivated by the Indians in every part of the continent of South America. It is an herbaceous tree, growing to the height of fifteen or twenty feet. Its stem, which is about eight inches thick at the bottom, and regularly tapers to the top, is enwrapped with many leafy circles; these expand at the extremity of the trunk, and form the footstalks, and midribs of the leaves, which come out on every side. The leaves are smooth, of an oval form, in colour like those of Cabbage, five or six feet long, and two broad, have many transverse, prominent veins, but the leafy part is so thin, that a strong wind often tears them into rags, and makes them cut an uncouth figure. On the first appearance of the leaves they

they are rolled up like the young shoots of a Brake; but as they advance, they turn backward, and their growth is so quick, that it may be almost seen by a person nigh. From among the leaves comes forth a long spike of flowers, in circular bunches; those at the upper part of the spike are all male, and those at the bottom all hermaphrodite. Each of these bunches has its spatha, of an oblong-oval form, and a fine purple colour. The flowers are of the lip kind, the petals forming the upper, and the nectarium * the under lip. Each flower has six stamina, five seated in the petals, and the sixth in the nectarium. The germen is placed below the flower; it is very long, nearly triangular, supports a cylindrical style, longer than the petals, and is crowned by a roundish stigma.

The fruit are nearly of the size and shape of ordinary Cucumbers, and when ripe of a pale yellow colour, of a mealy substance, a little clammy, a sweetish taste, and will dissolve in the mouth without chewing. The whole spike of fruit often weighs forty or fifty pounds. When they are brought to table by way of desert, they are either raw, fried, or roasted; but if intended for bread, they are cut before they are ripe, and are then either roasted or boiled. The trees

* The Nectarium is a gland, or appendage to the petal, and is appropriated for containing the honey,

being

being tall and slender, the Indians cut them down to get at the fruit; and in doing this they suffer no loss, for the stems are only one year's growth, and would die if not cut; but the roots continue, and new stems soon spring up, which in a year, produce ripe fruit also. From the ripe *Plantains* they make a liquor, called *Mislaw*; when they make this, they roast the fruit in their husks, and after having totally beat them to a mash, they pour water upon them, and as the liquor is wanted, it is drawn off. But the nature of this fruit is such, that they will not keep long without running into a state of putrefaction, and therefore in order to reap the advantage of them at all times, they make cakes of the pulp, and dry them over a slow fire; and as they stand in need of *Mislaw*, they mash the cakes in water, and they answer all the purposes of the fresh fruit. These cakes are exceedingly convenient to make this liquor of in their journies, and they never fail to carry them for that purpose. The leaves of the tree being large and spacious, serve the Indians for table-cloths and napkins.

27 *Musa sapientum*. *The Banana*. *Lin. Sp. pl.* 1477.

Musæ affinis altera. *Baub. Pin.* 580.

This is a native of both the Indies, and is much cultivated in the American islands,
by

by the name of *Banana*. It differs from the former in the stem being marked with purple stripes, in the other not; in the fruit being shorter, straighter, and more obtuse. These grow in bunches from ten to fourteen pounds. They have a fragrant smell, and an agreeable delicious taste, far preferable to the *Plantain*, but yet inferior to many European fruits.

The leaves of this tree are by many authors supposed to be the same sort with those our first parents made themselves aprons. They indeed are called in Scripture Fig leaves; but as these are larger and more fit for the purpose than any species of Fig, there is the greater probability in the supposition; these being four or five feet long, one broad, and of a pretty tough texture.

28 *MESPILUS germanica*. *The Medlar*.
Lin. Sp. pl. 684.

Mespilus germanica, folio laurino non ferrato. *Baub. Pin.* 453.

This grows naturally in Sicily, but is so common in gardens, and orchards, as to make it generally known. Linnæus makes the Dutch Medlar only a variety of this, though many think it a distinct species. The Dutch is the sort now chiefly cultivated, by reason it produces larger and better flavoured

flavoured fruit; but neither of them are eatable, unless kept till they be rotten.

29 MAMMEA Americana. *The Mammee.*
Lin. Sp. pl. 731.

Arbor indica Mamei dicta. *Baub. Pin.*
417.

This grows naturally in Jamaica, and in many parts of the Spanish West Indies. It rises to near seventy feet, with a straight stem, destitute of knots and branches, except at the top, where it breaks into rough boughs, furnished with oblong, obtuse, shining green leaves, which continue the year through. The flowers are composed of four concave, spreading petals each, surrounding many short, hair-like stamina, having oblong summits, and one cylindrical style, crowned with a convex stigma. The germen is roundish, and becomes a globular, yellowish, rough fruit, about the size of a Quince, and contains three or four almost oval seeds, about as big as almonds.

These fruits have a very grateful flavour, and are much cultivated in Jamaica, where they are generally sold in the markets for one of the best the island produces.

30 MALPHIGIA glabra. *Barbadoes*
Cherry. *Lin. Sp. pl.* 609.

Malphigia fruticosa erecta, foliis nitidis
5 *ovatis*

ovatis acuminatis, floribus umbellatis, ramulis gracilibus. *Browne's Jam.* 230.

This grows naturally in Jamaica, Brasil, Surinam, and Curaçoa, but it is now cultivated in most of the West-India Islands, and particularly at Barbadoes. It sends up a slender trunk to about fifteen feet covered with a light brown bark. At the top it breaks into many branches, the twigs of which are furnished with oval, smooth, acute pointed leaves in pairs. The flowers are produced in bunches, upon long peduncles; they consist of five kidney-shaped, rose-colour petals each, joined at their base, and include ten awl-shaped, erect stamina, tipped with heart-shaped summits. The germen is small and roundish, and supports three slender styles, crowned with obtuse stigmata.

The berries are red, about the size of small Cherries, and are gathered and eaten by the inhabitants, the same as Cherries are in England, but they are far inferior.

31 *MALPHIGIA puniceifolia*. *Pomegranate-leaved Malphigia*. *Lin. Sp. pl.* 609.

Malphigia fruticosa erecta, ramulis gracilibus patentibus, floribus solitariis. *Browne's Jam.* 230.

This is a native of Jamaica. It is a smaller tree than the former, and grows after the manner of a shrub. The branches are
slender,

slender, spreading, covered with a light brown bark, and are furnished with leaves like those of the Pomegranate. The flowers are produced single in this species, contrary to those of the first, which come out in umbels. The fruit are rather more acid than the former, but are eaten after the same manner.

32 *PASSIFLORA maliformis.* *Apple-shaped Granadilla.* *Lin. Sp. pl.* 1355.

Passiflora foliis cordato-oblongis integerrimis, floribus solitariis, involucro tripartito integerrimo. *Roy. lugdb.* 261.

This is a native of the Island of Dominica in the West-Indies, and is cultivated both for ornament and use in several of the Islands there. It sends forth an herbaceous, climbing stalk, having tendrils at every joint, by which it fastens to the hedges for support, and runs to the length of near twenty feet. There is also at each joint one oblong heart-shaped leaf, having two glands upon its footstalk. The flowers are produced singly at the footstalks of the leaves, upon long peduncles, and each is composed of a three-leaved, red cover, enclosing five white petals and numerous blue rays, which spread very wide, and make a most beautiful appearance; but they are of short duration. When the flower falls, the germen swells to a yellow berry, of the size and shape of a small

small Apple, containing a sweet pulp, and many oblong, brownish seeds.

These berries have a pleasant flavour, and are generally served up at table by way of dessert.

33. *PASSIFLORA laurifolia.* Bay-leaved Passion-flower. *Lin. Sp. Pl.* 1356.

Passiflora foliis solitariis oblongis integerrimis; floribus solitariis, involucro tripartito dentato. *Ray. Ingb.* 532.

The *laurifolia* is a native of Surinam, the fruit of which is greatly beneficial to the inhabitants of that hot climate. It sends forth many tough, slender stalks, with claspers at their joints, by which they climb up the trees and bushes to the height of twenty feet or more. These are furnished with oblong-oval; entire leaves, resembling those of the Laurel, and having two glands on their footstalks. The flowers are produced at the joints of the stalks, in manner of the former. Their full-grown buds are nearly as large as those of the garden single Poppy, each having a cover, composed of three indented oval, green leaves; these enclose the flower-cup, which consists of five pale green, oblong leaves, with white insides. The petals are white, spotted with brown, and are but little more than half the breadth of the leaves of the calyx or cup. The rays of the flowers are of a violet colour,

lour, the column in the centre is yellowish, its germen at the top the same, but the three styles are purple. On the fading of the flower, the germen swells to a yellow, oval berry, somewhat resembling a Citron, but smother.

The fruit of this species have a delicate acid flavour, far preferable to the former, and are excellent for quenching thirst, abating heat in the stomach, encreasing the appetite, recruiting the spirits, and allaying the heat in burning fevers.

34 *PSIDIUM* pyriferum. *Pear Guava.*
Lin. Sp. pl. 672.

This grows naturally in both the Indies, and is much cultivated in the American Islands. It rises to eighteen or twenty feet, dividing into many branches from near the bottom; these are covered with a reddish-gray bark, are angular, and furnished with narrow, bluntish leaves, three or four inches long, supported on short footstalks: from the wings of these the flowers are produced singly on peduncles, about an inch long; each is composed of five white, concave petals, inserted in a bell-shaped calyx, cut at the brim into four or five teeth, and of numerous short stamina, tipped with small, pale yellow summits. The germen is roundish, seated below the calyx, and supports a very long awl-shaped style, crowned with a
2 simple

simple stigma; it grows to a whitish Pear-shaped berry, adorned at the apex with the remains of the calyx, and includes many small seeds.

35 *PSIDIUM pomiferum*. *Apple Guava*.
Lin. Sp. pl. 672.

Guajabo pomifera indica, *pomis rotundis*.
Baub. Pin. 437.

This and the former are promiscuously described by travellers as one species only, but Linnæus has plainly pointed out two distinct ones. The leaves of the *pomiferum* are sharp-pointed, in the *pyriferum* they are rather obtuse; the latter has only one flower on a peduncle, but the former has three. The fruit of the *pyriferum* is shaped like a Pear; but that of the *pomiferum* like an Apple. This last is the sort most cultivated, the pulp having a fine acid flavour, whereas the former is sweet, and therefore not so agreeable in hot climates.

Of the inner pulp of either sort the inhabitants make jellies; and of the outer rinds they make tarts, marmalades, &c. The latter too they stew, and eat with milk, and prefer them to any other stewed fruits. They have an astringent quality, which should forbid strangers making too free with them, as they are apt to render the body costive. This astringency runs through all parts of the trees, and exists

pretty copiously in the leaf-buds, which are occasionally boiled with barley and liquorice, as an excellent drink against diarrhæas. A simple decoction of the leaves, used as a bath, are said to cure the itch, and most cutaneous eruptions.

36 SOLANUM lycopersicum. *Lin. Sp. pl.*
265.

Solanum pomiferum, fructu rotundo striato molli. *Baub. Pin.* 167.

The *Love Apple* is an annual and a native of America. It hath herbaceous, branching, trailing, hairy stems, four or five feet long, and without spines. These are furnished with pinnated leaves, of an offensive smell, and each is composed of four or five pair of jagged pinnæ, ending in an acute point. The flowers come out in long racemi in different parts of the branches; they are yellow, monopetalous *, plaited, cut at their brims into five sharp teeth, and have five small awl-shaped stamina, closely surrounding a slender style, which sits upon an oval germen. As the flower withers, the germen swells to a round, smooth berry, bigger than a large Cherry, and of various colours on different plants ‡ on some it being red, on others of a deep orange, and on some yellow.

* Consisting of one petal.

That which is so much cultivated by the Portuguese Linnæus makes only a variety of this. They call it *Tomatas*, and it differs from the original in the fruit being deeply furrowed. These berries are in such esteem both among the Portuguese and the Spaniards, that they are an ingredient in almost all their soups and sauces, and are deemed cooling and nutritive.

37 *SOLANUM melongena.* *Lin. Sp. pl.*
266.

Solanum pomiferum, fructu oblongo.
Baub. Pin. 167.

The *Mad Apple* is a native of Asia, Africa, and America. It is an annual, and sends forth an irregular, branched, ligneous, hollow stalk, which rises about two feet high, and is furnished with oblong-oval, woolly leaves, on long downy footstalks. The flowers come out singly from the sides of the branches, on long peduncles; these are shaped like those of the common Potatoe, but their calyces are set with spines. They are succeeded by large egg-shaped berries, which are mostly of a purple colour on one side, and white on the other. This plant varies much in the form and colour of its fruit, they being conical or egg-shaped in some, and in respect to colour, are sometimes purple, pale red, yellow, or white. The plant is now frequently raised in our

gardens, where the fruit for the most part come white, and resemble eggs, which has obtained it the name of *Egg Plant*. In the West-Indies they call it *Brown John*, or *Brown Jolly*.

These berries are boiled in soups and sauces, the same as the Love Apple, are accounted very nutritive, and are much sought after by the votaries of Venus.

38 SOLANUM sanctum. *Palestine Nightshade. Lin. Sp. pl. 269.*

Solanum spinosum, fructu rotundo. Baub. Pin. 167.

This is a shrubby plant, and grows naturally in Egypt and Palestine. It hath a woolly, ash-coloured stalk, set with short, erect, thick, yellowish spines. The leaves are egg-shaped, and have serpentine edges; these are spiny and woolly. The flowers come out at the side of the stalks, on prickly peduncles; they are of a deep blue, with bristly calyces, and they have a great resemblance to the flowers of the Borrage.

Hasselquist says this plant is known in Egypt, by the name *Meringam*, and that the fruit, which are globular, are much eaten by the inhabitants.

39 SORBUS domestica. *Lin. Sp. pl. 684.*

Sorbus fativa. Baub. Pin. 415.

The *True Service-tree* grows wild in the warmer

warmer parts of Europe, and it is also found in Cornwall, but many doubt its being a native of England. It becomes a large tree, sending out many branches, covered with a rough grayish bark, and furnished with winged leaves, resembling those of the common Ash, but they are hoary underneath, (in the young trees), and serrated on their edges. The flowers are produced in large, round bunches at the ends of the branches; they are small and white, consist of five petals each, surrounding many stamina, and three styles. The germen is seated under the flower, and becomes a soft, umbilicated berry, inclosing three or four oblong, cartilaginous seeds.

The natural size of these berries is that of a small Medlar, but cultivation has altered both size and form; some being nearly round, and as big as a Pippin, and others Pear-shaped. They have a rough, astringent taste when fresh gathered, and therefore must be kept some time to mellow, and then they become pleasant.

40 *TROPHIS americana. Red-fruited Bucephalon. Lin. Sp. pl. 1451.*

Trophis foliis oblongo-ovatis glabris alternis, floribus masculis spicatis ad alas. Browne's Jam. 357.

This is a shrubby plant, and, as its trivial name expresses, a native of America,

and particularly of the Island of Jamaica. It is male and female in distinct plants. The leaves come out in an alternate order, on very short footstalks; they are smooth, of an oblong-oval form, sharp-pointed, and entire. The flowers are produced in long bunches, from the sides of the branches; those of the male have no calyx, but consist of four obtuse, spreading petals, surrounding four slender stamina, longer than the petals. The female flowers are composed of a small monophyllous calyx, and an oval germen, supporting a bipartite style; and are succeeded by globular, rough berries, each having one cell, containing a roundish seed.

These fruits have not a very recommendable flavour, yet are frequently eaten by the inhabitants of Jamaica.

41 VITIS-vinifera. *Lin. Sp. pl.* 293.

The *Vine* is now multiplied into so many varieties, that to set them all down would be useless, especially as several lists of them have been already published; but it will not be amiss, perhaps, to give short descriptions of the few following, as they are in general esteem for their superior qualities, or are frequently cultivated in England. These are;

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|----------------------------------|--------------------------------|
| 1 The <i>Black Sweet Water</i> . | 8 The <i>Black Muscat</i> . |
| 2 The <i>White Sweet Water</i> . | 9 The <i>Violet Muscat</i> . |
| 3 The <i>Golden Chasselas</i> . | 10 <i>Alexandrian Muscat</i> . |
| 4 The <i>Musky Chasselas</i> . | 11 The <i>Red and Black</i> |
| 5 The <i>Black Cluster</i> . | <i>Hamburg</i> . |
| 6 The <i>White Muscat</i> . | 12 <i>St. Peter's Grape</i> . |
| 7 The <i>Red Muscat</i> . | |

The *Black Sweet Water* hath short bunches, and small roundish berries, growing close together. Their skin is thin, and their juice very sweet, which much tempt the birds and flies to destroy them. Ripens early in August.

The *White Sweet Water* hath very irregular sized berries on the same bunch, some being of a good size, others extremely small. The juice has a pleasant sugary flavour. It ripens with the former.

The *Golden Chasselas* hath large bunches, and round, different sized berries. These are of a bright green at first, and when ripe of an amber colour. The juice is sweet and sugary. The *Red Chasselas* is a variety of this.

The *Musky Chasselas* hath round berries, nearly of the size of the former. The berries are of a greenish-white, and plentifully stored with a sugary, musky, juice. It ripens in September.

The *Black Cluster* hath downy leaves, and short bunches, closely set with oval berries, many of which cannot ripen, they being so covered with the rest. This is by many called the *Burgundy*. Ripe about the time of the former.

The *White Muscat*, or *White Frontinas*, hath large, even, conical bunches, ending in a point. The berries are closely studded together, and are of a bright green on the shady-side, inclining to an

an amber colour on the other, and are thinly covered with a bloom. The juice has a most excellent flavour, when the berries are perfectly ripe, which seldom happens here.

The *Red Muscat*, or *Red Frontinac* hath long bunches, more thinly set with berries than the White. They are large and round; before ripe, gray with dark stripes, but when fully ripe, almost of a brick red. The juice has a high, vinous flavour. Ripe the beginning of October.

The *Black Muscat*, or *Black Frontinac*, hath good sized round berries, which are more distant on the bunches than the Red. The bunches are short, the berries very black, and covered with a deep violet bloom. The juice is very rich and vinous. Ripe about the time of the former.

The *Violet Muscat* hath leaves resembling the White Muscat. The berries are large, rather long, and are covered with a deep violet bloom. The juice is not excellent, but musky and agreeable.

The *Alexandrian Musket*, or *Jerusalem Muscat*, hath long, regular bunches, with the berries hanging loose upon them. There are two sorts of this; one with whitish, and the other with red berries, both of a rich, vinous flavour, but seldom ripen here.

The *Red and Black Hamburgh*, or *Warner's Grape*, has middle-sized berries, and large bunches. The former are rather of an oval shape, and contain a sugary, vinous juice. They ripen in October.

The *St. Peter's Grape* hath very deep-divided leaves, somewhat resembling those of the Parsley-leaved Grape. The bunches are very large, the berries

berries of a deep black, of an oval form, large, and make a fine appearance, but their juice is not rich.

The *Vine* is a native of France, Spain, Portugal, and many other places under the same parallels of latitude.

C H A P. VI.

ESCULENT STONE FRUIT*.

S E C T. I.

Stone Fruit of Europe.

- 1 **A** MYGDALUS perfica. *The Peach.*
Nuciperfica. The Nectarine.
- 2 Cornus mascula. *Male Cornel, or Corne-*
lian Cherry.
- 3 Olea Europea. *Manured Olive.*
— *sylvestris.* Wild Olive.
- 4 Prunus armeniaca. *The Apricot.*
- 5 Prunus avium. *Wild Black Cherry.*
- 6 Prunus cerasus. *Wild Red Cherry.*
- 7 Prunus domestica. *The Plum-tree.*
- 8 Prunus insititia. *The Bullace-tree.*
- 9 Rhamnus zizyphus. *Common Jujube.*

1 AMYGDALUS perfica. *The Peach.*
Lin. Sp. pl. 676.

Perfica molli carne et vulgaris. *Baub.*
Pin. 440.

* Linnaeus defines *drupa* to be a pulpy pericarpium, or seed-vessel, without an opening, and includes a stone of nut.

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This is said to be a native of Europe, but of what part is not known. The flower is composed of five obtuse petals, inserted into a tubular calyx, cut into five obtuse segments, together with above twenty slender stamina, inserted also into the calyx, surrounding a roundish germen, which turns to a roundish, fleshy, furrowed fruit, inclosing a hard stone. Cultivation has produced many varieties of this fruit, and the following are the most esteemed sorts.

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|------------------------------------|--------------------------------|
| 1 The <i>White Nutmeg</i> . | 15 The <i>Bellogarde</i> . |
| 2 The <i>Red Nutmeg</i> . | 16 The <i>Bouraine</i> . |
| 3 The <i>Early Purple</i> . | 17 The <i>Rossanna</i> . |
| 4 The <i>Small Mignon</i> . | 18 The <i>Admirable</i> . |
| 5 The <i>White Magdalen</i> . | 19 The <i>Old Newington</i> . |
| 6 The <i>Yellow Alberge</i> . | 20 The <i>Royal</i> . |
| 7 The <i>Large French Mignon</i> . | 21 The <i>Rambouillet</i> . |
| | 22 The <i>Portugal</i> . |
| 8 The <i>Beautiful Chevreuse</i> . | 23 The <i>Late Admirable</i> . |
| | 24 The <i>Nivette</i> . |
| 9 The <i>Red Magdalen</i> . | 25 <i>Venus's Nipple</i> . |
| 10 The <i>Chancellor</i> . | 26 The <i>Late Purple</i> . |
| 11 <i>Smith's Newington</i> . | 27 The <i>Perisue</i> . |
| 12 The <i>Montauban</i> . | 28 The <i>Catharine</i> . |
| 13 The <i>Malta</i> . | 29 The <i>Monstrous Pavy</i> . |
| 14 The <i>Vineuse</i> . | 30 The <i>Bloody Peach</i> . |

The *White Nutmeg* is the first Peach in season, it being often in perfection by the end of July. The leaves are doubly serrated, the flower large, and of a pale colour; the fruit is white, small, and round; the flesh too is white, parts from the stone, and has a sugary, musky flavour.

The

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The *Red Nutmeg* hath yellowish green leaves, with serpentine edges, which are slightly serrated. The flowers are large, open, and of a deep blush-colour. The fruit is larger, and rounder than the former, and is of a bright, vermillion next the sun, but more yellow on the other side. The flesh is white, except next the stone, from which it separates, and has a rich, musky flavour. It ripens just after the White Nutmeg.

The *Early Purple* hath smooth leaves, terminated in a sharp point. The flowers are large, open, and of a lively red. The fruit is large, round, and covered with a fine deep red coloured down. The flesh is white, red next the stone, and full of a rich, vinous juice. Ripe about the middle of August.

The *Small Mignon* hath leaves slightly serrated, and the flowers small and contracted. The Peach is round, of a middling size, tinged with darkish red on the sun-side, and is of a pale yellowish colour on the other. The flesh is white, parts from the stone, where it is red, and contains plenty of a vinous, sugary juice. Ripens rather before the former.

The *White Magdalen* hath long, shining, pale-green leaves, deeply serrated on the edges, and the wood is mostly black at the pith. The flowers are large and open, appear early, and are of a pale red. The fruit is round, rather large, of a yellowish-white colour, except on the sunny side, where it is slightly streaked with red. The flesh is white to the stone, from which it separates, and the juice is pretty well flavoured. Ripe at the end of August.

The *Yellow Alberge* hath deep red, middle-sized flowers; the Peach is smaller than the former, of
a yellow

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a yellow colour on the shady side, and of a deep red on the other. The flesh is yellow, red at the stone, and the juice is sugary and vinous.

The *Great French Mignon* hath large, finely serrated leaves, and beautiful red flowers. The fruit is large, quite round, covered with a fine satiny down, of a brownish red colour on the sunny side, and of a greenish yellow on the other. The flesh is white, easily parts from the skin, and is copiously stored with a sugary, high flavoured juice. Ripe near the middle of August.

The *Beautiful Chevreuse* hath plain leaves, and small contracted flowers. The fruit is rather oblong, of a middling size, of a fine red colour next the sun, but yellow on the other side. The flesh is yellowish, parts from the stone, and is full of a rich sugary juice. It ripens a little after the former.

The *Red Magdalen* hath deeply serrated leaves, and large open flowers. The fruit is large, round, and of a fine red next the sun. The flesh is firm, white, separates from the stone, where it is very red; the juice is sugary, and of an exquisite rich flavour. Ripe at the end of August.

The *Chancellor* hath large, slightly serrated leaves. The Peach is about the size of the Beautiful Chevreuse, but rather rounder. The skin is very thin, of a fine red on the sunny-side; the flesh is white and melting, parts from the stone, and the juice is very rich and sugary. It ripens with the former.

The leaves of *Smith's Newington* are serrated, and the flowers are large and open. The fruit is of a middle size, of a fine red on the sunny side; the flesh white and firm, but very red at the stone,

to

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to which it sticks closely, and the juice has a pretty good flavour. Ripens with the former.

The *Montauban* hath serrated leaves, and large open flowers. The fruit is about the size of the former, of a purplish red next the sun, but of a pale one on the shady side. The flesh is melting, and white even to the stone, from which it separates. The juice is rich, and well flavoured. It ripens a little before the former.

The *Malta* hath deeply serrated leaves, and the flowers are large and open. The fruit is almost round, of a fine red next the sun, marbled with a deeper red, but the shady-side is of a deep green. The flesh is fine, white, except at the stone, from which it parts, where it is of a deep red; the juice is a little musky, and agreeable. It ripens at the end of August, or beginning of September.

The *Vineuse* hath large, deep green leaves, and full bright red flowers. The fruit is round, of a middle size; the skin is thin, all over red; the flesh fine and white, except at the stone, where it is very red, and the juice is copious and vinous. Ripe in the middle of September.

The *Bellegarde* hath smooth leaves, and small contracted flowers. The fruit is very large, round, and of a deep purple colour next the sun. The flesh is white, parts from the stone, where it is of a deep red, and the juice is rich and excellent. It ripens early in September.

The *Bourdine* hath large, fine green, plain leaves, and small flesh-coloured contracted flowers. The fruit is round, of a dark red next the sun, the flesh white, except at the stone, where it is of a deep red, and the juice is rich and vinous. Ripens with the former.

The

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The *Rossanna* hath plain leaves, and small contracted flowers. The fruit is rather longer than the *Alberge*, and some count it only a variety of the latter. The flesh is yellow, and parts from the stone, where it is red; the juice is rich and vinous. Ripe early in September.

The *Admirable* hath plain leaves, and small contracted flowers, which are of a pale red. The fruit is very large and round; the flesh is firm, melting, and white, parts from the stone, and is there red; and the juice has a sweet, sugary, high vinous flavour. Ripe early in September.

The *Old Newington* hath serrated leaves, and large open flowers. The fruit is large, of a fine red next the sun; the flesh is white, sticks close to the stone, where it is of a deep red, and the juice has an excellent flavour. It ripens just after the former.

The *Royal* hath plain leaves, and small contracted flowers. The fruit is about the size of the *Admirable*, and resembles it, except that it has sometimes a few knobs or warts. The flesh is white, melting, and full of a rich juice; it parts from the stone, and is there of a deep red. Ripe about the middle of September.

The *Rambouillet* hath leaves and flowers like the *Royal*. The fruit is rather round than long, of a middling size, and deeply divided by a furrow. It is of a bright yellow on the shady-side, but of a fine red on the other. The flesh is melting, yellow, parts from the stone, where it is of a deep red, and the juice is rich and vinous. Ripe with the former.

The *Portugal* hath plain leaves, and large open flowers. The fruit is large, spotted, and of a
Q
beautiful

beautiful red on the sunny side. The flesh is firm, white, sticks to the stone, and is there red. The stone is small, deeply furrowed, and the juice is rich and sugary. Ripe towards the end of September.

The *Late Admirable* hath serrated leaves, and brownish red small contracted flowers. The fruit is rather large and round, of a bright red next the sun, marbled with a deeper. The flesh is of a greenish-white, and sticks to the stone, where it hath several red veins; the juice is rich and vinous. Ripe about the middle of September.

The *Nivette* hath serrated leaves, and small contracted flowers. The fruit is large and roundish, of a bright red colour next the sun, but of a pale yellow on the shady-side. The flesh is of a greenish-yellow, parts from the stone, where it is very red, and is copiously stored with a rich juice. It ripens about the middle of September.

Venus's Nipple hath finely serrated leaves, and rose-coloured, small contracted flowers, edged with carmine. The fruit is of a middling size, and has a rising like a breast. It is of a faint red on the sun-side, and on the shady one of a straw-colour. The flesh is melting, white, separates from the stone, where it is red, and the juice is rich and sugary. Ripens late in September.

The *Late Purple* hath large, serrated leaves, which are variously contorted, and the flowers are small and contracted. The fruit is round, large, of a dark red on the sunny-side, and yellowish on the other. The flesh is melting, white, parts from the stone, where it is red, and the juice is sweet and high flavoured. Ripens with the former.

The *Perfiquè* hath large, very long indented leaves, and small contracted flowers. The fruit

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is large, oblong, of a fine red next the sun; the flesh firm, white, but red at the stone, juicy, and of a high pleasant flavour. The stalk has frequently a small knot upon it. Ripe late in September.

The *Catharine* hath plain leaves, and small flowers. The fruit is large, round, of a very dark red next the sun. The flesh white, firm, sticks close to the stone, and is there of a deep red. The juice is rich and pleasant. It ripens early in October.

The *Monstrous Pavy* hath large, very slightly serrated leaves, and large, but rather contracted flowers. The fruit is round, and very large, whence its name. It is of a fine red on the sunny side, and of a greenish-white on the other. The flesh is white, melting, sticks close to the stone, and is there of a deep red. It is pretty full of juice, which in dry seasons, is sugary, vinous and agreeable. Ripe towards the end of October.

The *Bloody Peach* hath rather large, serrated leaves, which turn red in Autumn. The fruit is of a middling size, the skin all over of a dull red, and the flesh is red down to the stone. The fruit is but dry, and the juice rather sharp and bitterish. It seldom ripens well in England, but is well worth cultivating notwithstanding, for the fruit-bake and preserve excellent well.

NECTARINES.

Linnaeus makes the *Nectarine* only a variety of the *Peach*, for its having a smooth coat was only an accident originally. There are many varieties of it now cultivated; and

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the following are some of the most esteemed sorts commonly planted in England.

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|--------------------------|-------------------------|
| 1 The <i>Elruge</i> . | 5 The <i>Murrey</i> . |
| 2 The <i>Newington</i> . | 6 The <i>Italian</i> . |
| 3 The <i>Scarlet</i> . | 7 The <i>Golden</i> . |
| 4 The <i>Roman</i> . | 8 The <i>Temple's</i> . |

The *Elruge* hath large serrated leaves, and small flowers. The fruit is of a middling size, of a dark purple colour next the sun, and of a greenish yellow on the shady side. The flesh parts from the stone, and has a soft, melting, good flavoured juice. Ripe early in August.

The *Newington* hath serrated leaves, and large open flowers. The fruit is pretty large, of a beautiful red on the sunny side, but of a bright yellow on the other. The flesh sticks to the stone, is there of a deep red colour, and the juice has an excellent rich flavour. Ripe towards the end of August.

The *Scarlet* is rather less than the former, of a fine scarlet colour next the sun, but fades to a pale red on the shady side. It ripens near the time of the former.

The *Roman*, or *Cluster Red Nectarine*, hath plain leaves, and large flowers. The fruit is large, of a deep red towards the sun, but yellowish on the shady side. The flesh is firm, sticks to the stone, and is there red; the juice is rich, and has an excellent flavour. Ripe about the end of August.

The *Murrey* is a middling-sized fruit, of a dirty red colour on the sunny-side, and yellowish on the shady one. The flesh is firm, and tolerably well flavoured. It ripens early in September.

The *Italian Nectarine* hath smooth leaves and small

small flowers; the fruit is red next the sun, but yellowish on the other side; flesh firm, adheres to the stone, where it is red, and when ripe, which is early in September, has an excellent flavour.

The *Golden Nectarine* has an agreeable red colour next the sun, bright yellow on the opposite side; flesh very yellow, sticks to the stone, where it is of a pale red, has a rich flavour, and ripens in September.

Temple's Nectarine is of a middling size, of a fair red next the sun, of a yellowish green on the other side; flesh white near the stone, from which it separates; ripens in September, and has a high poignant flavour.

Peaches and *Nectarines* are wholesome fruits, and gently constringe the stomach, if eaten when not too mellow. The flowers of the former furnish the shops with an excellent syrup for children, to whom it proves both gently emetic and cathartic.

2 CORNUS mascula. *Cornelian Cherry*.
Lin. Sp. pl. 171.

Cornus sylvestris mas. *Baub. Pin.* 447.

This grows wild in the woods and hedges in Austria. It is a shrubby plant, dividing into many irregular branches, covered with a rough bark; these spread wide, and are furnished with oval, veined leaves, not indented on their edges, and are sharp-pointed. The flowers come out in the spring before the leaves, and at the ends of the branches, in distinct umbels; they are small, yellowish, composed of four petals each, with four

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stamina longer than the petals, and one style. The germen is round, seated below the flower, and swells to an umbilicated oval berry, containing a nut with two cells,

These fruits are about the size of Cherries, of a yellowish red colour, and an austere flavour, are therefore seldom eaten fresh off the bushes, but are preserved to make tarts and other devices. There is a variety of this shrub with white fruit,

3 *OLEA europea. Manured Olive, Lin, Sp. pl. 11.*

Olea sativa. Baub. Pin. 472.

This is an evergreen, and a native of Austria, but is cultivated in France, Spain, Portugal, and Italy. It is rather of a shrubby nature, frequently sending forth several stems from the same root, though sometimes there is only one. The branches are roundish, and furnished with spear-shaped leaves, of a bright green colour, and stand opposite. The flowers are produced in small bunches at the footstalks of the leaves; they are white, tubular, and cut into four segments at the brims. Each flower contains two stamina, which are much shorter than the petal, and one slender style, crowned with a simple stigma. The germen is roundish, and turns to an oval plum, about the size of a pigeon's egg, and when ripe of a greenish black colour.

These plums are pickled, and sent to different

ferent parts of Europe ; but they are a very indifferent condiment, the oil with which they abound, being apt to pall and relax the stomach. They vary very much in regard to their nature, size, and colour, and this according to the soil and climate the trees are planted in. Those raised in Italy are the smallest, have almost an insipid taste, and therefore are worth little. Those propagated in Spain are the largest, but they have a rank, disagreeable smell and flavour. The Provence Olives are of a size between the two former, have a pleasant taste, furnish the most esteemed oil, and are the most valuable when pickled.

The greatest advantage arising from the cultivated *Olive*, is the abundance of oil that is expressed from the fruit ; and this oil is of three sorts. The purest and most valuable is that which runs upon a slight pressure ; the next in goodness from the same *Olives* more strongly pressed and slightly heated ; and the last and worst from the same operation more forcibly repeated. The great utility of this oil is sufficiently known.

4 PRUNUS armeniaca. *The Apricot. Lin. Sp. pl.* 679.

Mala armeniaca majora. *Baub. Pin.* 442.

In what particular part this grows naturally is not known. It rises to a large tree,

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with

with wide extending branches, furnished with nearly heart-shaped leaves. The flowers have very short peduncles, and are composed of five roundish petals, surrounding twenty or more stamina, and one style. - The varieties of this fruit most generally brought to the table, are,

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|--------------------------|-------------------------|
| 1 The <i>Masculine</i> . | 5 The <i>Turkey</i> . |
| 2 The <i>Orange</i> . | 6 The <i>Alberge</i> . |
| 3 The <i>Algier</i> . | 7 The <i>Breda</i> . |
| 4 The <i>Roman</i> . | 8 The <i>Brussels</i> . |

The *Masculine* is a small, roundish *Apricot*, red on the sunny side, and of a greenish yellow on the other. It puts forth a prodigious number of flowers, and is the first ripe of any.

The *Orange* is a larger fruit than the former, and when ripe of a deep yellow colour. The flesh of this is not delicate, and therefore it is more generally used for tarts.

The *Algier* is of an oval form, a little compressed on the sides, and of a pale yellow, or straw colour when ripe. The flesh is dry, and but badly flavoured.

The *Roman* is a larger fruit than the former, and not quite so much flattened. The colour is rather deeper, but the flesh is not so dry, and better flavoured.

The *Turkey Apricot* is round, and larger than either of the former. The flesh too is firmer, and of a finer flavour.

The *Alberge* is a small, compressed fruit, of a yellow colour on the sunny side, running into a greenish yellow on the other.

The

The *Breda* is the best fruit of all the sorts. It is large, roundish, of a deep yellow colour on the outside, and of a gold colour within. The flesh is soft, and full of a high flavoured juice. The stone is larger and rounder than in the others.

The *Brussels* is a middling sized fruit, and somewhat of an oval form. The side next the sun is red, with many dark spots; but on the shady side it is of a greenish yellow. The flesh is firm, and of a very good flavour. It is the latest ripe of all the Apricots.

5 PRUNUS avium. *Wild Black Cherry.*

Prunus umbellis sessilibus, foliis ovato-lanceolatis conduplicatis subtus pubescentibus. Lin. Sp. pl. 680.

This grows wild in the woods of England, where it arrives to a very large tree, sending out many spreading branches, the twigs of which are furnished with clusters of oval, serrated leaves, ending in a plain, spear-shaped point, and supported by purplish footstalks, having two linear, toothed stipulæ, or leaves at the base of each. The leaves are downy on the underside, with many prominent ribs running almost to the margin. The flowers are produced in sessile umbels, on long purplish peduncles, and for the most part come out by threes from the centre of several small, scaly, oval*, concave leaves, having their upper surfaces

* Some of these are often cut into three lobes, both in this and the following species.

covered

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covered with short hairs, after the manner of the leaves of the *Sunderw*. These serve as an involucre to the umbel. Each flower is composed of five white, oblong, snapped petals, inserted into a small smooth calyx, consisting of five acute segments, which turn back to the peduncle, and are of a bright purple colour at the insertion of the petals. The fruits are small, nearly egg-shaped, almost black when ripe, and contain a thick, sweet juice, which greatly tempts the birds to destroy them. These fruits are much used for making Cherry Brandy.

There is a sort growing in some of the woods in Norfolk, which appears to be a variety of this; its leaves are smaller than the above, more finely serrated, are not quite so downy underneath, but the stipulæ and leaves of the involucre are of the same form, and the insides of the latter are equally hairy. The flowers are large, the fruit small, red, egg-shaped, and bitterish.

The nurserymen sow the stones of the *avium* for raising stocks to graft or bud the other sorts of Cherries upon; and the general opinion is, that the only garden-variety procured by sowing the stones, is the *Black Corone*.

There is a water kept in the shops made from the fruit of the *Wild Black Cherry*, and has long been in much esteem among nurses as a remedy for convulsions in children, but
it

It is with good reason now almost laid aside; for it has been proved, that the distilled water made from the stones of these fruits will poison brutes very suddenly, and as the shop water must imbibe some of the pernicious quality of the stones, though probably in a small degree, yet the quantity may be sufficient to hurt the tender nerves of infants, and thereby increase the disorder it was intended to cure.

6 PRUNUS cerasus, *Wild Red Cherry.*

Prunus umbellis subsessilibus, foliis ovato-lanceolatis conduplicatis glabris. Lin. Sp. pl. 679.

This too grows in our woods and hedges, is a much smaller tree than the former, and the bunches of flowers and leaves are supported on short woody footstalks. The leaves are but little better than half the size of those of the *avium*, more acute towards the footstalk, and are smooth and glossy on the underside, the ribs are less prominent, but they are studded with a few whitish hairs. The flowers are mostly produced four or five together; their peduncles are smooth, short, and of a shining green. The segments of the calyx are obtuse, the petals roundish, and very seldom snapped. The leaves of the involucre are short, polished on the outside, and very slightly hairy on the inner. The fruits are round, red, tolerably

lerably large, and of an acid flavour. Mr. Hudson now makes the *avium* only a variety of this, but whoever will attend to the descriptions just given, will certainly conclude he is wrong, and be fully convinced they are distinct species.

Linnæus and other late writers on botany have supposed the *cerasus* to be the parent of all the cultivated Cherries, except the *Black Corone*; what induced them to conjecture this is difficult to guess, as several of the garden sorts retain more of the original properties of the *avium*, than they do of the *cerasus*; and particularly the Bleeding Heart, the White Heart, the Black Heart, and the Ox Heart, the leaves, flowers, and involucre of which differ but very little from those of the *avium* in its wild state. Whether soil, situation, or their being constantly budded upon stocks raised from the stones of the latter, have any share in producing these similitudes, is uncertain, but if they be distinct species, why should not the one be as liable to produce varieties as the other? The following are the names of the sorts commonly cultivated in England.

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|---------------------------------|--------------------------------|
| 1 The <i>Early May Cherry</i> . | 7 The <i>White Heart</i> . |
| 2 The <i>May Duke</i> . | 8 The <i>Black Heart</i> . |
| 3 The <i>Archduke</i> . | 9 The <i>Red Heart</i> . |
| 4 <i>Holman's Duke</i> . | 10 The <i>Ox Heart</i> . |
| 5 The <i>White Spanish</i> . | 11 The <i>Bleeding Heart</i> . |
| 6 The <i>Yellow Spanish</i> . | 12 <i>Harrison's Heart</i> . |
| | 13 <i>Tradescant's</i> |

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| <p>13 <i>Tradescant's Cherry.</i>
 14 <i>The Late Archduke.</i>
 15 <i>The Lukeward.</i>
 16 <i>The Red, or Kentish.</i></p> | <p>17 <i>The Black Corone.</i>
 18 <i>The Large Mazard.</i>
 19 <i>The Carnation.</i>
 20 <i>The Morello.</i></p> |
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The fruit of most of these varieties are well known, and therefore I shall omit their particular descriptions.

7 *PRUNUS domestica.* *The Plum-tree.*
Lin. Sp. pl. 680.

Prunus inermis, foliis lanceolato-ovatis.
Hort. cliff. 186.

This grows wild in our woods and hedges. It is a smaller tree than the former. The leaves are oval, and spear-pointed. The flowers mostly stand singly, and the branches have no spines. The cultivated varieties are many, and some of them have a most excellent flavour, but are deemed not very wholesome, and ought to be eaten sparingly. The following are some of the most esteemed sorts; viz.

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| <p>1 <i>The White Primordian.</i>
 2 <i>The Early Black Damask.</i>
 3 <i>The Little Black Damask.</i>
 4 <i>The Great Damask Violet.</i>
 5 <i>The Fotheringham.</i>
 6 <i>The Orleans.</i>
 7 <i>The Black Perdignon.</i>
 8 <i>The Violet Perdignon.</i></p> | <p>9 <i>The White Perdignon.</i>
 10 <i>The Bonum-magnum.</i>
 11 <i>The White Mogul.</i>
 12 <i>The Cheston.</i>
 13 <i>The Apricot Plum.</i>
 14 <i>The Maître Claude.</i>
 15 <i>The Red Diaper.</i>
 16 <i>The Small Queen Claude.</i>
 17 <i>The Large Queen Claude.</i>
 18 <i>The</i></p> |
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|-------------------------------|---------------------------------|
| 18 The <i>Myrobalan</i> . | 25 The <i>Late Red Damask</i> . |
| 19 The <i>Date Plum</i> . | 26 The <i>Wentworth</i> . |
| 20 The <i>Cloth of Gold</i> . | 27 The <i>Bricette</i> . |
| 21 The <i>St. Catharine</i> . | 28 The <i>White Pear Plum</i> . |
| 22 The <i>Royal Plum</i> . | 29 The <i>Muscle Plum</i> . |
| 23 The <i>Brignole</i> . | 30 The <i>St. Julian</i> . |
| 24 The <i>Empress</i> . | |

The *White Primordian* is a yellow, small, longish Plum, covered with a white flue. It is but an indifferent fruit, and has only its earliness to recommend it, being ripe by the middle of July.

The *Early Black Damask* is a round, middling-sized Plum, divided with a furrow, and is of a dark black colour, covered with a violet flue. The flesh is yellow, of a good flavour, and parts from the stone. Ripe the beginning of August.

The *Little Black Damask* ripens just after the former. It is small, and covered with a light violet bloom; the flesh parts from the stone, and has a sweet, sugary juice.

The *Great Damask Violet* is inclining to an oval shape. The skin is of a dark blue, covered with a violet bloom. The flesh is yellow, parts from the stone, and the juice is richly sugared. Ripe in the middle of August.

The *Fotheringham* is of a blackish red colour, is rather of an oblong form, and deeply furrowed in the middle. The flesh is firm, parts from the stone, and the juice is very rich. Ripe with the former.

The *Orleans* is a round, middle-sized Plum, of a blackish red colour on the outside, and of a yellowish green within. The flesh is firm, parts from the stone, and has a tolerable good flavour. Ripe with the former.

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The *Black Perdigron* is an oval, middle-sized Plum, of a very dark colour, covered with a violet bloom. The flesh is firm, and copiously stored with an excellent, rich juice. Ripe at the end of August.

The *Violet Perdigron* is a large, roundish Plum, of a bluish-red colour on the outside. The flesh is yellowish, sticks to the stone, and the juice has a most exquisite rich flavour. Ripe with the former.

The *White Perdigron* is an oval, middling-sized fruit, of a yellow colour, covered with a white bloom. The flesh is firm, and has an agreeable sweetness. Ripe the end of August.

The *Red Bonum-magnum* is a large, deep-red, oval Plum, covered with a fine bloom. The flesh is firm, sticks to the stone, and has an austere, acid flavour, on which account it is mostly used for tarts. Ripe in September.

The *White Mogul* is also a large, oval fruit, of a yellowish colour, covered with a white bloom. The flesh is acid, and unpleasant raw, but it bakes well. Ripe just after the former.

The *Cheston* is an oval, middle-sized Plum, of a dark blue colour, powdered with a violet bloom. The juice is rich, and it is a great bearer. Ripe about the middle of September.

The *Apricot Plum* is large, round, and yellow, and is covered with a white bloom. The flesh is firm, parts from the stone, and has a sweet flavour. Ripe soon after the former.

The *Maitre Claude*, as it is called in England, is a middle-sized Plum, of a fine mixed colour, between red and yellow, and is of a roundish figure. The flesh is firm, parts from the stone, and has a good flavour. Ripe in September.

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The *Red Diaper* is a large, round Plum, of a reddish colour, covered with a violet bloom. The flesh has a very high flavour, and sticks to the stone. Ripe about the middle of September.

The *Small Queen Claude* is a round, whitish-yellow Plum, covered with a pearl-coloured bloom. The flesh is thick, firm, parts from the stone, and the juice is richly sugared. Ripe with the former.

The *Large Queen Claude* is a middling-sized, round, yellowish green fruit. The flesh is firm, of a dark green colour, parts from the stone, and the juice has an exceeding rich flavour. This is often confounded with the Green Gage, but it is a better Plum. Ripe about the middle of September.

The *Myrobalan* is a round, middle-sized Plum, of a dark purple colour, powdered with a violet bloom. The juice is sweet, and it is ripe early in September.

The *Date Plum* too is of a middle-size, but rather inclining to oblong. The skin is of a fine yellow, and frequently marked with bright red spots. The shady side is green, with a white bloom. Ripe in September.

The *Cloth of Gold* is a rounder Plum than the former, and more streaked with red. The flesh is yellow, and full of an excellent rich juice. Ripe about the middle of September.

The *St. Catharine* is an oval fruit, a little flattened. The skin is of an amber colour, covered with a whitish bloom; but the flesh is of a bright yellow, firm, sticks to the stone, and has an agreeable, sweet flavour. Ripe just after the former.

The *Royal Plum* is a large, oval fruit, and pointed at the stalk. It is of a light red colour, covered with a whitish bloom. The flesh sticks

to

to the stone, and has a pleasant, sugary juice. Ripe towards the end of September.

The *Brignole* is a large, oval Plum, of a yellowish colour, mixed with red. The flesh is of a bright yellow, is dry, but of an excellent taste. Ripe about the middle of September.

The *Empress* is rather a large, oval Plum, of a violet colour, and thickly covered with a whitish bloom. The flesh is yellow, sticks to the stone, and has a very agreeable flavour. Ripe at the end of September.

The *Late Red Damask* is a middling-sized Plum, of an oval form. It is of a deep red on the sunny-side, and of a pale one on the other. The flesh is yellowish, melting, and of a good flavour. Ripe late in September.

The *Wentworth* is a large, oval Plum, of a yellow colour, and much resembles the *Bonum-magnum*. The flesh is yellow, parts from the stone, and has a sharp, acid taste. It ripens at the end of September, and is principally used for tarts.

The *Bricette* is a small, yellowish-green Plum, powdered with a white bloom. The flesh is yellow, sweet, but of a flattish flavour. Ripe the beginning of October.

The *White Pear Plum* is a rather longish, white fruit, of an unpleasant, acid flavour, and therefore not proper to eat raw, but is a good fruit for preserving. It comes so late that it seldom ripens well.

The *Muscle* is an oblong, pointed Plum, of a dark blue colour. The stone is large, and the flesh thin. There are several sorts of the Muscle Plum, as the Black, the Red, and the White, but they have all but an indelicate flavour.

The *St. Julian* is a small, dark violet-coloured
R Plum,

Plum, covered with a mealy bloom. The flesh sticks to the stone, and in fine autumns the fruit will dry upon the trees. These last three sorts are raised more for stocks to bud upon, than for their fruits.

8 PRUNUS infititia. *The Bullace-tree.*
Lin. Sp. pl. 680.

Pruna sylvestria præcocia. Baub. Pin.

444.

This grows wild in our hedges. The flowers are mostly produced two together. The leaves are more oval than those of the *domestica*, are downy underneath, and the edges are rolled inward. The branches are a little spiny. The *Black Bullace* is too well known to require a description. There are two varieties of it, the Red and the White Bullace.

9 RHAMNUS zizyphus, *Common Jujube.* *Lin. Sp. pl.* 282.

Jujuba sylvestris. Baub. Pin. 446.

The *Common Jujube* is a native of the warm parts of Europe. It hath a stiff woody stem, which divides into many irregular branches, set with erect spines in pairs. The leaves are of an oblong-oval form, smooth, and slightly serrated on the edges; they are about two inches long, and stand upon short footstalks. The flowers are produced by two or three at a place;

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are yellowish, funnel-shaped, have no calyx, and are cut into five segments at their brims. Each includes five awl-shaped stamina, fastened to the base of the petal, and two slender styles, crowned with two obtuse stigmata. The germen becomes an oval Plum, inclosing a stone with two cells, each having an oblong seed.

The fruit are about the size of Olives, of a yellowish red colour, sweetish, and a little clammy. In the winter season they are served up at table in Spain and Italy, as a dry sweetmeat. They were formerly kept in the shops, by the name of Jujubes, and stood recommended against coughs, asthmas, pleurifies, and heat of urine; but are seldom to be met with at present.

S E C T. II.

Stone Fruit Exotic.

- 1 **C**Hryfobalanus icaco. *Cocoa Plum.*
- 2 **C**occoloba uvifera. *Sea-side Grape,*
or Sea-side Mangrove.
- 3 *Cordia myxa. Clustered Sebesten, or*
Affyrian Plum.
- 4 *Cordia sebestena. Rough-leaved Sebesten.*
- 5 *Corypha umbraculifera. Umbrella Palm.*
- 6 *Elais guineensis. Oil Palm.*

R 2

7 *Eugenia*

- 7 *Eugenia jambos*. *Malabar Plum*.
- 8 *Grias cauliflora*. *Anchovy Pear*.
- 9 *Laurus persea*. *Avigato Pear*.
- 10 *Mangifera indica*. *Mango-tree*.
- 11 *Phœnix dactylifera*. *Common Date*.
- 12 *Rhamnus jujuba*. *Indian Jujube*.
- 13 *Spondias lutea*. *Yellow Jamaica Plum*.

I *CHRYSOBALANUS icaco*. *Cocoa Plum*.
Lin. Sp. pl. 681.

This tree is a native of South America, growing there in many parts near the sea. It is a shrubby plant, not rising more than eight or ten feet high, and sending out many side branches, covered with a dark brown bark, spotted with white; these are furnished with stiff, rough leaves, which are snipped at their ends into the form of an inverted heart, and stand in an alternate order on short footstalks. Both at the wings of the leaves, and divisions of the branches, the flowers are produced in loose panicles. They are small and white, consist of a bell-shaped calyx each, cut into five spreading parts at the brim, containing five oblong petals, inserted by their bases into the calyx. The stamina are ten, or more, tipped with yellow summits; these surround a long style, sitting upon an oval germen, and crowned with an obtuse stigma.

The fruit are about the size of small Olives, and of various colours, some being whitish,

whitish, some brown, some blue, and others blackish. The stone is shaped like a pear, and has five longitudinal furrows. The Plums have a sweet luscious taste, and are brought to the tables of the inhabitants where they grow, by whom they are much esteemed.

2 COCCOLOBA uvifera. *Sea-side Grape.*
Lin. Sp. pl. 523.

Populus americana rotundifolia. *Baub.*
Pin. 430.

The *Sea-side Grape* grows upon the sandy shores of most of the West India islands, where it sends up many woody stems, eight or ten feet high, covered with a brown smooth bark, and furnished with thick, veined, shining orbicular leaves, five or six inches diameter, standing upon short footstalks. The flowers come out at the wings of the stalks, in racemi of five or six inches long; they are whitish, have no petals, but each is composed of a monophyllous calyx, cut at the brim into five oblong, obtuse segments, which spread open, continue, and surround seven or eight awl-shaped stamina, and three short styles, crowned with simple stigmata. The germen is oval, and becomes a fleshy fruit, wrapped round by the calyx, and includes an oval nut, or stone.

These Plums are about the size of Gooseberries, of a purple red colour, and a tole-

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rable good flavour. There are some other species of this genus whose fruits are eaten by the inhabitants where they grow, but they are smaller, and not so well tasted.

3 *CORDIA myxa*. *Affyrian Plum*. *Lin. Sp. pl.* 273.

Sebestena sylvestris et domestica. *Baub. Pin.* 446.

The *Cultivated Sebesten* grows wild in Affyria and Egypt, and also on the coast of Malabar. It rises to the height of a middling Plum-tree, and its branches are furnished with oval, woolly leaves, standing without order. The flowers are produced in bunches, are white, and consist of one tubular petal, and a like calyx, nearly of an equal length, and both are cut into five parts at their brims. In their centre are five very small stamina, and one slender style, crowned with an obtuse stigma. The germen is roundish, and swells to a Plum of the same form, and about the size of a Damson, of a dark brown colour, a sweet taste, and very glutinous.

These Plums were formerly kept in the shops, and were accounted good for ob-
tunding acrimony, and thereby stopping
fluxions of rheum upon the lungs; but
at present they are little used for these pur-
poses.

In some parts of Turkey they cultivate
this

this tree in great abundance, not only for the sake of the fruit to eat, but to make bird-lime of, which is a vast article of trade in a town called *Seid*.

4 *CORDIA sebestena*. *Rough-leaved Sebesten*. *Lin. Sp. pl.* 271.

Cordia foliis amplioribus hirtis, tubo floris subæquali. *Browne's Jam.* 202.

This grows naturally in both the Indies, and sends forth several shrubby stalks eight or ten feet high. The young leaves are serrated, but the full grown ones are not. They are of an oblong-oval form, rough, of a deep green on the upper side, and stand alternately on short footstalks. The flowers terminate the branches in large clusters, are nearly of the shape and colour of those of the Marvel of Peru, and make a most beautiful appearance. Each has five stamina, and one bifid style. The Plums are much of the shape of those of the *myxa*, and are eaten in the same manner.

The fruit of this tree is less valuable than the wood, a small piece of which thrown upon a clear fire will perfume a room with a most agreeable odour.

5 *CORYPHA umbraculifera*. *Umbrella Palm*. *Lin. Sp. pl.* 1657.

Palma montana, folio plicatili flabelliformi
R 4

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formi maximo semel tantum frugifera.
Raii Hist. 1363.

This is a species of *Palm*, and a native of India, where it is called *Codda-pana*. It rises to a considerable height, and produces at the top many large palmated, plaited leaves, the lobes of which are very long, and are placed regularly round the end of a long spiny footstalk, in a manner representing a large umbrella. The flowers are produced on a branched spadix, from a compound spatha or sheath; they are hermaphrodite, and each consists of one petal, divided into three oval parts, and contains six awl-shaped stamina, surrounding a short slender style, crowned with a simple stigma. The germen is nearly round, and becomes a large globular fruit of one cell, including a large round stone. These Plums having a pleasant flavour are held in esteem by the Indians.

6 ELAIS guineensis. *Oil Palm.* *Lin. Syst. Nat.* 730.

Palma frondibus pinnatis ubique aculeatis nigricantibus, fructu majore. *Mill. Dict.*

This too is a species of *Palm*, and grows spontaneously on the coast of Guinea, but is much cultivated in the West-Indies. It rises to forty or fifty feet high, bearing at the top many winged leaves, the lobes of which

which are long, narrow and flexible. The footstalks of the leaves clasp the stem with their broad bases, from which they regularly diminish upward, and are all the way set with strong, recurved, blackish spines. The flowers are male and female in separate bunches, and come out between the leaves; those of the male are monopetalous, cut at their brim into six segments, and each has a six-leaved calyx; in the centre are six slender stamina longer than the petal. The females have likewise a six-leaved calyx and six distinct petals, including three stigmata. The germen is oval, and swells to a fruit somewhat bigger than an Olive of a yellow colour, and contains a stone with three valves.

These fruits are copiously stored with a sweet luscious oil, which the Indians are very fond of, and their manner of extracting it, is to roast the fruit in the embers, and then suck the oil out of them. But for the purpose of keeping, they draw the oil in the same manner as the Europeans do that of Olives, and use it in diet as we do butter. It is of the consistence of an ointment, of an orange colour, a pleasant taste, of no disagreeable smell, and enters our *materia medica* as an emollient, and a strengthener of all kind of weakness of the limbs. It also stands recommended against bruises, strains, cramps, pains, swellings, &c.

The

The Indians anoint their bodies with this oil, not only to prevent a too plentiful perspiration, but to supple their stiffened fibres, and to render their skins soft and sleek. The stones of the fruit contain agreeable-flavoured kernels, which the Negroes scoop out, and then string the shells in the manner of beads, in order to wear about their necks. This is a valuable tree to the inhabitants, for besides the benefits already mentioned to accrue from it, they also extract a liquor from the body, which they ferment into an intoxicating drink, called *Palm-wine*.

7 *EUGENIA jambos. Malabar Plum. Lin. Sp. pl. 672.*

Perfici officulo fructus malaccensis ex candido rubescens. *Baub. Pin. 441.*

This is a very tall tree, and a native of India. The body is covered with a greyish bark, and it sends out many spreading branches, in the manner of the Walnut. The leaves are oblong, entire, sharp-pointed, of a deep green on their upper side, of a pale one underneath, and are five or six inches long. The flowers come forth at the ends of the twigs, on branched peduncles. Each is composed of a monophyllous calyx, cut into four obtuse segments; and four oblong, obtuse petals, twice the length of the calyx, with many stamina inserted into them. The germen is seated underneath;

underneath ; it is top-shaped, supports a style longer than the stamina, and becomes a fruit about the size of a small Pear, having one cell, containing a roundish stone.

The fruit vary in their colour from a flesh to a dark red, and smell like Roses. On the coast of Malabar, where the trees grow plentifully, these plums are in great esteem. They are not only eaten fresh off the trees, but are preserved with sugar, in order to have them at table at all times in the year. Of the flowers they make a conserve, as we do of Roses, which is used medically for the same purposes as the latter is.

8 *GRIAS cauliflora. Anchovy Pear. Lin. Sp. pl. 732.*

Calophyllum foliis tripedalibus obovatis, floribus per caulem et ramos sparsis. Browne's Jam. 245.

The *Anchovy Pear* is a native of Jamaica. The leaves are nearly oval, and about three feet long. It hath a straight stem, upon the upper part of which come forth the flowers, each composed of a monophyllous calyx, containing four roundish, stiff, concave petals, and many bristly stamina, inserted into the calyx. The germen is depressed, sunk in the calyx, has no style, but supports a cross-shaped stigma. The fruit is large, and contains a stone with eight furrows.

These

These fruits are eaten by the inhabitants, but their flavour or quality I know nothing of.

9 LAURUS persea. *Avigato Pear. Lin. Sp. pl. 529.*

Pyro similis fructus in Nova Hispania, nucleo magno. *Baub. Pin. 439.*

The *Avigato Pear* is a native of the West-India Islands, and is a large tree, growing thirty or forty feet high. The trunk is covered with a smooth ash-coloured bark, and the branches are furnished with large leaves like those of Laurel, but of a tougher texture; these are of a deep green colour, and continue the year through. The flowers are mostly produced near the extremities of the branches; they are of a dirty yellow colour, and agreeable smell, have no calyx, but each is composed of six oval, sharp-pointed, spreading petals, surrounding nine stamina, (three of which are often imperfect) about half the length of the petals, and one short style. The germen is Pear-shaped, and swells to a large fleshy fruit of the same form, covered with a strong, tough skin or shell, which is smooth, of a beautiful green at first, but when ripe of a yellow colour, and contains a pale green pulp, that melts in the mouth like marrow, which it greatly resembles in flavour, and is very nourishing. Dr. Bancroft says it is the most nutritious

nutritious of all the tropical fruits. Within is a large, roundish, russet-coloured wrinkled nut, without any kernel.

Though this tree is said to be a native of the West-Indies, yet it is probable it was originally brought thither from New Spain, where it grows in great abundance, and is of great use to the inhabitants. The unripe fruit have but little taste, nevertheless, they being very salubrious, and of a refreshing comfortable nature, are frequently brought to table, and eaten with salt and pepper. The sailors, when they arrive at the Havanna and those parts, purchase plenty of these fruits, and chopping them into small pieces with green Capsicums and a little salt, regale themselves most heartily with them.

As the pulp is very soft and delicious in the ripe fruit, the inhabitants often break the shells and scoop out the marrow with a tea-spoon; but the most common method is to serve it up to table on a plate, mixed with sugar, rose-water, and the juice of Limes, which render it quite delicate, and in this form it warms and fortifies the stomach, and is counted good against dysenteries.

Of the buds of this tree a ptisan is made; which is deemed excellent against the venereal disease; and an infusion of them, drank in a morning fasting, is strongly recommended

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mended for dislodging coagulated blood in the stomach, produced there by means of a stroke or fall. The wild hogs greedily devour the fruit of this tree, and those of the *Mammea*, which give their flesh a most agreeable and luscious flavour.

IO MANGIFERA indica. *Mango-tree.*
Lin. Sp. pl. 290.

Perficæ similis putamine villoso. Baub.
Pin. 440.

The *Mango-tree* grows naturally on the coast of Malabar, but is cultivated almost all over Asia. It is a large spreading tree, having the branches thickly set with long, narrow leaves, somewhat resembling those of the Peach, but larger. The flowers come out in compound racemi, are composed of five white, spear-shaped petals each, surrounding five awl-shaped stamina, longer than the petals, and tipped with heart-shaped summits. The germen is roundish, supports one slender style, crowned with a simple stigma, and swells to a kind of kidney-shaped fruit, about the size of a Peach, and covered with a soft downy skin of like nature.

These fruits when ripe are juicy, of a good flavour, and are so fragrant, as to perfume the air to a considerable distance. They are eaten either raw, or preserved with sugar. Their taste is so luscious that they
soon

soon pall the appetite. The unripe fruits are pickled in the milk of the Cocoa Nut that has stood till sour with salt, Capficum, and garlick, and thus managed they are eaten in the manner of Mango, and are said to have a pleasant flavour.

II PHOENIX dactylifera. *Common Date.*
Lin. Sp. pl. 1658.

Palma dactylifera major vulgaris. Sloan.
Jam. 174.

The *Date-tree* is a species of *Palm*, and grows plentifully in Africa and most parts of India. It hath a sort of pithy trunk, which in some places rises to near an hundred feet. This is round, straight, and studded with protuberances, which are the vestiges of decayed leaves; for as the tree advances in height, the old leaves fall off. When the tree is arrived to a bearing state, the leaves at the top are six or eight feet long, extending all round like an umbrella, and regularly bending towards the earth. They are pinnated, with lobes near a yard long, about an inch broad, sharpish pointed, and of a bright green colour. The trees are male and female in distinct plants. The flowers of both come out between the leaves; those of the male are produced on a long branched spadix, issuing from a large spathá, and are composed of a small tripartite

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tite * calyx, containing three oval, white petals, and three very short stamina, tipped with long, four-square summits. The female flowers come out in the same manner as the former, and much resemble them, but have a roundish germen, supporting a short style, crowned with an acute stigma. When these fall they are succeeded by fruit about the size of Olives, but of different casts and colours on the outside, and contain a yellowish, agreeable-flavoured pulp, in the midst of which is a round, hard stone, of an ash-colour, and marked with deep furrows.

Unripe *Dates* are rather rough and astringent, but when they are perfectly matured, they are much of the nature of the Fig. The Senegal *Dates* are deemed the best, they having a more sugary agreeable flavour than those produced at Egypt, and other places. This tree³ is of inestimable value to the inhabitants where it grows, almost every part serving some oeconomic purpose. Dr. Hasselquist's relation of it is as follows :

“ In Upper Egypt many families subsist almost entirely upon *Dates*; in Lower Egypt they do not eat so many, rather choosing to sell them. The Egyptians make a conserve with fresh *Dates*, mixing them

* Cut into three parts.

with

with sugar; this has an agreeable taste. The kernels of the *Dates* are as hard as horn, and no one would imagine that any animal would eat them. But the Egyptians break them, and grind them in their mills, and, for want of better food, give them to their Camels, who eat them. In Barbary, they turn beads for pater-nosters, of these stones. Of the leaves they make baskets, or short bags, which are used in Turkey, on journies, or in their houses. In Egypt they make fly-flaps of them, convenient enough to drive away these numerous insects, which much incommode a man in this country. I have likewise seen brushes made of them, with which they clean their soffas and cloaths. The hard boughs they use for fences round their gardens, and cages to keep their fowls in, with which they carry on a great traffick. They also use the boughs for other things in husbandry, instead of wood, which they are destitute of. The trunk or stem is split, and used for the same purposes as the branches; they even use it for beams to build houses, as they are strong enough for small buildings. It is likewise used for firing, where there is want of better. The integument, which covers the tree between the boughs, entirely resembles a web, and has threads, which run perpendicularly and horizontally over one another; this is of considerable use in

S. Egypt,

Egypt, for of it they make all the rope they use to their cisterns, &c. They have also rigging of the same kind for their smaller vessels; it is pretty strong and lasting. They reckon in Egypt, that *Date-trees* afford to their owners a Sequin * annually of profit for each tree. It is common to see two, three, or four hundred fruit-bearing trees all belonging to one family, and one may sometimes see three or four thousand in the possession of one man, which, at the above rate, bring in a considerable revenue to their owner, for the little spot of ground they occupy. A full grown *Date-tree* does not, at most, take up above four feet in diameter, so that they may be planted within eight feet of each other."

The *Date-tree*, as has been shewn in the description, is male and female in distinct plants, and the husbandry practised by the cultivators of these trees, in order to be sure of a crop, is one of the main pillars that support the sexual system; for, unless the flowers of the female be impregnated by those of the male, the crop will be very scanty, and the quality of the fruit inferior, nor will the stones of such *Dates* vegetate when sown. It greatly behoves

* A Sequin in Egypt is worth about nine shillings sterling, and allowing nine feet for every tree (which is one foot more than Hasselquist mentions) an acre of land would contain 1613 trees, and produce to the owner 725 pounds annually.

female

the husbandman, therefore, to see that his female trees are plentifully supplied with the farina of the male, and as the manner of performing this is curious, and may be new to many readers, Dr. Hasselquist's relation of it may not prove unacceptable. In a letter to Dr. Linnæus, dated at Alexandria. —“ The first thing I did, says he, after my arrival in Egypt, was to see the *Date-tree*; the ornament, and a great part of the riches of this country. It had already blossomed, but I had, nevertheless, the pleasure of seeing in what manner the Arabs assist its fecundation, which is as follows: when the spadix, or receptacle of the *Date*, bears female flowers, they search on a male *Date-tree* for a spadix, which has not yet burst, or been protruded from its sheath; this they open, take out its spadix, and cut it lengthways in several pieces, taking care not to hurt the flowers; a piece of this spadix with male flowers, is put lengthways between the small branches of the spadix with female flowers, over which is laid a *Date-leaf*. In this situation I yet saw the greatest part of the spadices, or heads of flowers, which bore their young fruit; but the male flowers, which were intermingled with the female, were withered. The Arab, who informed me of these particulars, gave me likewise the following anecdotes. First, unless they wed, and fecundate the *Date-*

tree in this manner, it bears no fruit*. Secondly, they always take the precaution to preserve some unopened spathæ with male flowers, from one year to another, to be applied for this purpose, in case the male flowers should miscarry, or suffer damage. Thirdly, if they permit the spadix of the male flowers to burst, or come out, it becomes useless for fecundation: it must have the maidenhead, say the Arabs, which is lost in the same moment the blossoms burst out of their case. The person, therefore, who cultivates *Date-trees*, must be careful to hit the proper time of assisting their fecundation, which is almost the only article in their cultivation."

12 RHAMNUS jujuba. *Indian Jujube.*
Lin. Sp. pl. 282.

The *Indian Jujube* is a smaller tree than the *Zizyphus*, described in the last Sect. The branches of this are covered with a yellowish bark, and the spines are bent, and stand singly, whereas those of the *Zizyphus* are straight, and placed two together. The leaves are almost round, woolly underneath,

* This must be understood, that it bears no fruit of a good quality, and such as the seeds will not vegetate when sown, by reason they want the *punctum vitæ*, the same as eggs laid without the assistance of a cock; which, though they may appear perfect in every respect, yet wanting the speck of life, can never be brought one jot the forwarder by the incubation of the hen.

and

and notched at the footstalks. The flowers come out in clusters, some having two styles, others only one. The fruit are almost globular, and have been by many supposed to be the true Sebesten of the shops, but Linnæus and his disciples have amply proved the contrary, and shewn that the shop Sebesten is the fruit of the *Zizyphus*.

13 SPONDIAS lutea. *Yellow Jamaica Plum. Lin. Sp. pl. 613.*

Spondias foliis plurimis pinnatis ovatis, racemis terminalibus, cortice interno rubente. Browne's Jam. 229.

This tree is a native of America, and it is highly probable it grows also in the East Indies. It is of small stature, seldom rising more than twelve or fourteen feet, breaking into many branches, which are furnished with pinnated leaves, composed of a great number of serrated pinnæ, placed alternately along the midrib, which is terminated by an odd one. The flowers are produced at the ends of the branches, in long racemi, they are of a pale yellow colour, and each consists of a sort of bell-shaped calyx, cut into five segments, together with five oblong, plain, spreading petals, surrounding ten bristly stamina, shorter than the petals, and five short, perpendicular styles, crowned with obtuse stigmata. The germen is oval, and becomes an oblong fruit, of a pale

yellow colour, covered with a mealy farina, and contains a woody, fibrous stone, having five cells.

These Plums have a sweet luscious taste, but are thinly furnished with flesh, otherwise they would be much more valued; they are, however, in general esteem among the inhabitants of the West India islands, and are of great use to the hogs, being their principal food all the time they are in season.

It is probable these Plums were one of the sorts of Myrobalans formerly kept in the shops, which consisted of five different species. There is another tree of this genus, natural to the East Indies, and differs little from this, but in the colour of the fruit, which is purple, and therefore it is not unlikely but this was another of the shop Myrobalans, as one sort of them was of this colour.

C H A P. VII.

ESCULENT APPLES.

S E C T. I.

Apples of Herbaceous Plants.

- I CUCUMIS melo. *Musk Melon.*
 ————— *melo albus.* Spanish
 White Melon.
 ————— *melo lævis.* Smooth, green-
 fleshed Melon.
 ————— *melo flavus.* Yellow Winter
 Melon.
 ————— *melo parvus.* Small Portugal
 Musk Melon.
 ————— *melo pilosus.* Hairy-skinned
 Melon.
 ————— *melo reticulatus.* Netted-
 skinned Melon.
 ————— *melo striatus.* Late small
 striated Melon.
 ————— *melo tuberosus.* Warted Can-
 taleupe.

* Linnæus defines an *Apple* to be a pulpy seed-vessel, without a valve; and containing within it a membranous capsule, with several cells to receive the seeds.

Cucumis melo turbinatus. Top-shaped Melon.

———— *melo virens.* Green rinded Melon.

2 *Cucumis chate.* *Egyptian Melon.*

3 *Cucumis sativus.* *Common prickly Cucumber.*

———— *sativus albus.* White prickly Cucumber.

———— *sativus longus.* Long prickly Cucumber.

4 *Cucumis flexuosus.* *Green Turkey Cucumber.*

———— *flexuosus albus.* White Turkey Cucumber.

5 *Cucurbita lagenaria.* *Bottle Gourd.*

6 *Cucurbita citrullus.* *Water Melon.*

7 *Cucurbita pepo.* *Common Pompion.*

———— *pepo oblongus.* Long Pompion.

8 *Cucurbita verrucosa.* *Warted Gourd.*

9 *Cucurbita melopepo.* *The Squash, or Melon Gourd.*

10 *Melothria pendula.* *Small Creeping Cucumber.*

1 *CUCUMIS melo.* *Musk Melon.* *Lin. Sp. pl.* 1436.

Melo vulgaris. *Baub. Pin.* 310.

What particular country the *Musk Melon* is a native of is not known, but it is now cultivated in almost every part of Europe. The varieties mentioned in the list are the most

most distinguished ones, but some of them are not worth the expence of raising. The small *Portugal Melon* is a tolerable good one, and is the more to be esteemed because it comes early, and is a plentiful bearer.

The *Cantaleupe* is a middle-sized fruit, of a roundish form, the outer coat is studded with rough knobs, or protuberances like warts, the flesh is generally of an orange colour, of a delicious flavour, and may be eaten in considerable quantities, without hurt to the stomach, which is not the case of most of the other sorts. The Dutch are so fond of this that they pay little regard to any other, and by the way of pre-eminence, call it only *Cantaleupe*, not joining Melon to it. It takes its name from a place called *Cantaleupe*, about fourteen miles from *Rome*, where it is greatly cultivated, and where the Pope has a country-seat. But Miller says it was first brought thither from that part of *Armenia*, bordering on *Persia*, in which place it is produced in such plenty, that a horse-load is sometimes sold for a French crown.

2 CUCUMIS chate. *Egyptian Melon. Lin. Sp. pl. 1437.*

Cucumis Ægyptius rotundifolius. Baub. Pin. 310.

This is an annual, and grows spontaneously in Egypt. It hath long procumbent,

bent, obsolete angled stalks, which put forth claspers, and are furnished with erect, pellucid, white hairs. The leaves are almost round, and, like the stalks, are covered with a plush of soft white hairs. The fruit also is hairy, long, tapering, and the flesh almost of the same consistence as that of other Melons. Miller reports that it is of an insipid taste, and not worth cultivating; probably it may be so here, for want of proper management, or a natural soil and climate; but in Egypt it is in so much esteem, as to have obtained the name of *Queen of Cucumbers*. The taste is sweet, and a little watery. Hasselquist asserts, that the Grandees and Europeans in Egypt, eat these as the most pleasant and refreshing fruit they have, and those from which they have the least to apprehend; that they are the most excellent of this tribe of any yet known, and that the Nobles of Europe might wish them at their tables.

The plant is found in the fertile plains round Cairo, after the inundation of the Nile, and not in any other place in Egypt, nor in any other soil.

3 *CUCUMIS sativus*. *Common Cucumber*.
Lin. Sp. pl. 1437.

Cucumis sativus vulgaris. *Baub. Pin.*

310.

The *Common Cucumber* is another of those
plants

plants whose native country is not known. It is universally cultivated in all the four quarters of the globe. The methods of eating the fruit here are too well known to require any thing said about them, but in Egypt they have one perhaps peculiar to themselves: this is to scoop out the chief of the flesh, and fill the shell with flesh and aromatic herbs, and then boil it in the manner of a pudding, which is said to be extremely palatable, and satisfactory. In some parts of the East they boil the fruit whole, and eat them with salt and vinegar. The seeds of Cucumbers, and those of the Melon, are two of the greater cold seeds, are deemed balsamic, cooling, and emollient, and are prescribed amongst diuretics.

4 CUCUMIS flexuosus. *Green Turkey Cucumber. Lin. Sp. pl. 1437.*

Cucumis oblongus. *Baub. Hist. II. p. 247.*

This is supposed to be a native of India. The stalks and leaves are longer than those of the former, and the fruit are smooth, and generally double the length of the *Common Cucumber*. The variety, called the *White Turkey*, is less watery than the green, and therefore is more generally esteemed; but the best sorts are counted unwholesome, and by their coldness, apt to dispose the blood to putrid fermentations, and lay the

the foundation of many of those malignant fevers, which often appear in autumn. To prevent these effects, therefore, they should always be eaten with plenty of salt, pepper, and vinegar.

5 *CUCURBITA lagenaria.* *Bottle Gourd.*
Lin. Sp. pl. 1434.

Cucurbita oblonga, flore albo, folio molli.
Baub. Pin. 313.

The *Bottle Gourd* is a native of America, and is there much cultivated. This is the most constant species of the genus, in regard to the form of its fruit. When the plant is in a soil that suits it, the stalks run to a prodigious length, and are covered with a fine, soft, hairy down. The leaves are large, heart-shaped, toothed on their edges, with two glands each at their base, and woolly like the stalks. The flowers are bell-shaped, are large and white, have reflexed brims, and are supported on long peduncles. The fruit is pear-shaped, mostly a little bent inwards, and when ripe, the rind is woody, and of a pale yellow colour.

In both the Indies this plant is much cultivated, and the fruit sold in the markets for the table. In these parts they make a principal part of the food of the common people, for three or four months successively. The inhabitants boil and eat them with vinegar. The large full grown fruit they frequently

frequently scoop, and filling the shells with meat and rice, boil them as a pudding. These shells being hard and ligneous, serve them for funnels, and many other household utensils.

6 CUCURBITA citrullus. *Water Melon.*
Lin. Sp. pl. 1435:

Anguria Citrullus dicta. Baub. Pin. 312:

The *Water Melon* is a native of the southern parts of Italy, and is not only much cultivated there and other parts of Europe, but also in Asia, Africa and America. It is an annual plant, and varies very much in the size, shape, and colour of both its fruit and the seeds; the latter are black in some, red in others, and the flesh yellow or red. The leaves are cut and divided into many parts, even almost to the midrib. The poor people in Persia, and the Levant, live almost entirely upon these, Musk Melons, Cucumbers, and milk, during the hot months. They are cooling, diuretic, and very wholesome, if used in moderation. In Egypt, says Hasselquist, they furnish the inhabitants with meat, drink, and physic. When the fruit is perfectly ripe, they make a hole in it, where the juice soon collecting, affords them a hearty draught; and in burning fevers, this liquor is mixed with rose-water, and a little sugar, and given the patient with great success. The unripe fruit are eaten

with bread, when in season, and by the common people counted their best provision, as they are obliged to put up with worse fare all the remaining part of the year. Notwithstanding this, strangers should be cautious of making too free with them at first, especially in the heat of the day, as they are apt to chill the blood too much, and thereby occasion cholics and violent fluxes.

7 CUCURBITA pepo. *Common Pompion.*
Lin. Sp. pl. 1435.

Cucurbita major rotunda, flore luteo, folio aspero. Baub. Pin. 213.

The *Common Pompion* is cultivated all over England, and the country people frequently raise it upon their dunghills, where it often bears very good fruit. The leaves are large, rough, and lobed, and the flowers yellow. The fruit are roundish, smooth, and yellow, and the seeds are swelled, or puffed up at their margins.

Many people eat this fruit, after they have prepared it in the following manner: they cut a piece from the side, and take out the pulp, which they clear from the seeds, and mixing it with sliced apple, sugar, and spice, then fill the shell with the composition, and bake the whole in an oven. When sufficiently done it is brought to table, where it furnishes them with a hearty meal.

meal. The native place of the plant is not known.

8 *CUCURBITA verrucosa*. *Warted Gourd*.
Lin. Sp. pl. 1435.

This is an annual, and the plant is in so many respects like the *pepo*, as hardly to be distinguished from it; but the fruit is smaller, the shell more woody, and studded with knobs or warts. Some people boil these fruits, and esteem them delicate, but for what good qualities I know not. The Americans, however, cultivate them on purpose for the table, and, when about half grown, boil and eat them with their meat. Where the plant grows naturally has not yet been ascertained.

9 *CUCURBITA melopepo*. *The Squash*.
Lin. Sp. pl. 1435.

Melopepo clypeiformis. *Bauh. Pin.* 312.

The *Squash* is also an annual, has lobate leaves like the former, but the stalk is mostly strong, bushy, and erect. It puts forth clasps, although it does not climb, nor is it procumbent. The fruit is knobby, depressed, or shield-shaped. The native place of the plant is not known, but it is much cultivated in North America, where the inhabitants boil the fruit, when about the size of large Walnuts, and eat them as the former.

10 *MELOTHRIA*.

10 MELOTHRIA pendula. *Small Creeping Cucumber.* Lin. Sp. pl. 49.

This is an annual, a native of America, and the only plant at present known of the genus. It sends forth many trailing stalks, which extend to a great length, and strike root at every joint; these are furnished with angular leaves, resembling those of the Melon, but they are not so large. The flowers are of a pale sulphur colour, and each is composed of a bell-shaped, monophyllous calyx, having five teeth (the upper one of which often falls off) and a wheel-shaped petal, snipped at the edge into five obtuse segments, with three conical filaments, tipped with twin, compressed summits, and inserted into the tube of the petal. The germen is an oblong-oval, and supports a cylindrical style, crowned with three oblong stigmata, and becomes a smooth, black, oval berry *, about the size of a sloe.

The inhabitants in the West Indies pickle these berries, and use them as we do Capers.

* This plant ought to have been placed in the Vth Chap. but as its general habit much resembles some of the plants just now described, I judged it would be as well to set it after them.

S E C T. II.

Apples of Trees.

- 1 **A**CHRAS sapota. *Oval-fruited Sapota.*
- 2 Averrhoa carambola. *Goa Apple, or Starry Plum.*
- 3 Averrhoa bilimbi. *Bilimbi.*
- 4 Punica granatum. *Pomegranate-tree.*
- 5 Pyrus communis. *Pear-tree.*
- 6 Pyrus malus. *The Crab-tree.*
- 7 Pyrus cydonia. *Quince-tree.*

1 ACHRAS sapota. *Oval-fruited Sapota.*
Lin. Sp. pl. 470.

Anona foliis laurinis glabris viridi-fuscis,
 fructu minore. *Sloane's Jam. 206. Hist. II.*

This tree is a native of South America,
 and is commonly planted in their gardens
 there. It rises to about thirty feet high,
 breaking into many branches, which form a
 regular head, and are furnished with leaves,
 shaped like those of the Laurel, but are near
 a foot long, two or three inches broad, and
 of a brownish-green colour. The flowers
 are produced from the sides of the branches,
 standing singly, and are of a cream colour.
 Each has a permanent calyx, composed of

T

five

five oval, acute-pointed leaves, surrounding five heart-shaped petals, ending in an acute point, and joined together at their base. In the centre of these are five short awl-shaped stamina, and one style, longer than the petals, ending with an obtuse stigma. The germen is roundish, and becomes an oval, succulent Apple, enclosing two or three oval seeds. There is a variety of this tree, bearing top-shaped fruit, with sharp-pointed seeds, and having a russet-coloured coat. This last is the cultivated sort.

The pulp of this fruit has a luscious taste, resembling that of marmalade of Quinces, whence it is called natural marmalade. The stones taken in emulsion are reckoned good against the gravel.

2 AVERRHOA carambola. *Starry Plum.*
Lin. Sp. pl. 613.

Mala goënsia, fructu octangulâri pomi vulgaris magnitudine. *Baub. Pin.* 433.

This grows on the coast of Malabar, where it gets to the size of a small Apple-tree. It puts forth many branches from the top, from which shoot many flexile twigs, furnished with oval, sharp-pointed, dark-green leaves, of a rough bitterish taste. The flowers come out at the joints of the twigs, upon short peduncles; they have a permanent, pentaphyllous calyx, surrounding five spear-shaped, bluish-coloured petals,
including

including ten hair-like stamina, tipped with roundish summits, and five short styles, crowned with simple stigmata. The germen is oblong, octangular, and becomes a yellowish, eight-cornered fruit, about the size of an hen's egg, containing many small angular seeds.

These Apples have a pleasant acid taste, are very cooling, and grateful to the stomach.

3 *AVERRHOA bilimbi. Bilimbi. Lin. Sp. pl. 613.*

This grows in the same parts of India as the former, and differs little from it except in the angles of the fruit; they being in this species obtuse, and in the *carambola* acute; a difference not attended to by travellers, which occasioned their confounding them as one.

4 *PUNICA granatum. Pomegranate-tree. Lin. Sp. pl. 676.*

Malus punica sylvestris. Baub. Pin. 438.

This is a native of Spain, Portugal, and Italy. It hath a woody stem, which rises sixteen or eighteen feet high, sending out many branches, garnished with shining-green, spear-shaped leaves, standing opposite. The flowers proceed from the extremities of the branches, some standing singly, and others three or four together,

regularly expanding in their turns, by which there is a succession of flowers for a considerable time. The calyx consists of a bell-shaped, red, fleshy leaf, cut at the brim into five sharp segments, and includes five roundish scarlet petals, inserted into the bottom of the calyx, as are the stamina, which are many in number, very slender, and surround one style, longer than themselves. The germen is roundish, and swells to a large round fruit, having a hard reddish rind, crowned with the remains of the calyx, and contains many roundish, succulent seeds.

The flesh of these fruits is of a yellowish colour, and a vinous flavour, but it is subject to generate wind, and cause pains in the stomach and bowels. They should always be eaten cautiously, lest they throw the blood into a state of putrefaction.

There are several varieties of this tree now cultivated in gardens, and two or three with double flowers; the calyces of the latter are the Balauftines of the shops, and are of an astringent nature.

5 PYRUS communis. *Pear-tree. Lin. Sp. pl. 686.*

Pyrus sylvestris. Baub. Pin. 439.

This grows wild in the woods and hedges of England. The generic characters are: the flower hath a permanent calyx of one
concave

concave leaf, divided into five segments at the margin, and five concave petals, inserted into it. The stamina are about twenty in number, are awl-shaped, shorter than the petals, and are inserted into the calyx. The germen is round, seated under the flower, and supports five erect styles, crowned with single stigmata. The fruit is large, fleshy, hath five membranaceous cells, each containing one smooth, oblong, pointed seed.

Neither *Pears* nor *Apples* in their wild state are of much value, but art and industry have obtained many varieties from them, which can hardly be excelled by any fruits in the world. Nor do any add more to the œconomy of human life than these; for beside the pleasure and refreshment they afford when eaten raw, they furnish excellent pies, tarts, and other devices, and ornament the table with the wholesome and cooling liquors of *Cider* and *Perry*. In setting down the varieties of the *Pear*, I shall reject such as are of an ordinary quality, and divide the rest into three Classes: the first comprehending such as are adapted for the table; the second such as are well enough qualified for this purpose, but degenerate when grafted on *Quince*-stocks; and the last, those that are proper for baking.

C L A S S I.

- | | |
|------------------------------------|---------------------------------|
| 1 <i>Petit Muscat, or Supreme.</i> | 20 <i>The Melting Musk.</i> |
| 2 <i>Little Bastard Musk.</i> | 21 <i>Red Bergamot.</i> |
| 3 <i>Early Russet.</i> | 22 <i>Swiss Bergamot.</i> |
| 4 <i>The Magdalen.</i> | 23 <i>Late Bergamot.</i> |
| 5 <i>Great Blanquette.</i> | 24 <i>Fig Pear.</i> |
| 6 <i>Musk Blanquette.</i> | 25 <i>German Muscat.</i> |
| 7 <i>Long-stalked Blanquette.</i> | 26 <i>Dutch Bergamot.</i> |
| 8 <i>Red Orange.</i> | 27 <i>St. Martial.</i> |
| 9 <i>August Muskat.</i> | 28 <i>St. Germain.</i> |
| 10 <i>Summer Boncretien.</i> | 29 <i>Chaumontelle Wilding.</i> |
| 11 <i>Swan's Egg.</i> | 30 <i>The Autumn Beauty.</i> |
| 12 <i>Princes' Pear.</i> | 31 <i>Good Lewis.</i> |
| 13 <i>Rosewater.</i> | 32 <i>Grey Dean.</i> |
| 14 <i>The Red Butter.</i> | 33 <i>Winter Tborne.</i> |
| 15 <i>Summer Bergamot.</i> | 34 <i>The Royal Winter.</i> |
| 16 <i>Autumn Bergamot.</i> | 35 <i>The Marchioness.</i> |
| 17 <i>The Rousseline.</i> | 36 <i>Winter Orange.</i> |
| 18 <i>The Royal Muscat.</i> | 37 <i>The Donville.</i> |
| 19 <i>The Jargonelle.</i> | 38 <i>Winter Russelet.</i> |
| | 39 <i>Beautiful Winter.</i> |
| | 40 <i>The Sarasin.</i> |

The *Little Musk*, or *Supreme Pear*, is rather round than long, and is generally produced in clusters. The stalk is short, the skin yellow, the juice a little musky, and is best flavoured when not too ripe, which is early in July*.

The *Little Bastard Musk* is shaped like the *Supreme*.

* The summer 1782 being a very unkind one for ripening fruit, more kind seasons may perfect some of them a fortnight or more sooner than here mentioned.

preme, but is smaller. It is seldom produced in clusters, and the side next the sun has a few streaks of red. It ripens much at the same time with the former, and it is more valuable for coming early, than for its extraordinary qualities.

The *Early Russet* is a small top-shaped Pear, with a yellow skin, dashed with red and grey on the sunny side; the flesh is yellowish, half-breaking, a little stony next the kernels, and has a perfumed, sugary juice.

The *Magdalen* is a middling-sized fruit, rather long, of a greenish-yellow when ripe; the flesh is white, melting, the juice perfumed, sweet, and mixed with a pleasant acid.

The *Great Blanquette*, or *Bagpipe of Anjou*, is a pretty large Pear, approaching to round. The skin is smooth, of a pale green colour, and full of a rich-flavoured juice. The stalk is short, thick, and spotted, and the leaf is like that of the *Jargonelle*. It ripens early in August.

The *Musk Blanquette* is a small fruit, much less than the former, and more pinched in at the stalk, which is about the same length with the other, but slenderer. The skin is soft, of a pale green, the flesh tender, and full of a rich musky juice. It ripens rather later than the *Blanquette*.

The *Long-stalked Blanquette* is shaped like the *Musk*, but it is more hollowed at the crown, and has a larger eye. It is plumpish towards the stalk, and a little crooked. The skin is smooth, of a greenish-white, sometimes has a russet tinge on the sunny side. The flesh is white, partly breaking, and plentifully stored with a vinous, sugary, perfumed juice. It ripens with the former.

The *Red Orange* is a middling-sized round Pear, much the shape of a *Bergamot*; of a greenish colour,

lour, except next the sun, where it is often purple, or red. The stalk is short, the eye very hollow, the flesh melting, and the juice sugary and musky.

The *August Muscat*, or the *Royal Pear*, is very much shaped like a Bergamot. The stalk is long, straight, a little spotted, and the eye a little hollowed. The skin is smooth, of a whitish yellow colour, the flesh breaking, and the juice very sugary and much perfumed. It ripens at the end of August, and is esteemed one of the best Pears the summer produces.

The *Summer Boncretien*, or *Good Christian*, is a large oblong Pear, with a thin, smooth, whitish green skin, except on the sunny side, where it is of a good red. The flesh is between breaking and tender, and is stored with a rich juice, of a high perfumed flavour. It ripens early in September.

The *Swan's Egg* has its name from its shape. The skin is of a green-yellow, and striped with a russet-red and green on the sun-side. The flesh is firm, a little melting, the juice sugary, slightly musky, but of an agreeable flavour.

The *Princes' Pear* is a small roundish, yellowish fruit, except next the sun, where it is of a bright red. The flesh is between melting and breaking, and the juice highly flavoured. It ripens in September, and is the more valuable because it is a good bearer.

The *Rosewater* is a large round Pear, rather flattish, hath a very short stalk, at the insertion of which it is hollowed like an apple. The skin is rough, of a brown colour, the flesh breaking, the juice very sweet, and it becomes ripe in September.

The

The *Red Butter*, *Grey Butter*, or *Green Butter*, is of different colours, according to the stock it hath been grafted upon. When propagated upon a free stock it is brown. As to its general shape, it is large and long. The flesh is very melting, full of a rich sugary juice, and it becomes ripe about the middle of October.

The *Summer Bergamot*, or *Hemden's Bergamot*, is a pretty large, flattish Pear, of a greenish-yellow colour, and hollowed at both ends like an apple. The flesh is melting, the juice highly perfumed, and it ripens a little before the former.

The *Autumn Bergamot* is a smaller fruit than the former, but much of the same shape. The skin is of a faint red on the sunny side, but of a yellowish-green on the other; the flesh is melting, and when ripe, which is in the beginning of October, the juice is highly perfumed.

The *Rouffeline*, or *Long-stalked Autumn Muscat*, is a smallish Pear, having a smooth skin, of a greenish-yellow colour, except on the sunny side, where it is red, with some spots of grey. The stalk is long, the flesh tender, delicate, and very sweet, with an agreeable perfume. It ripens towards the end of October.

The *Royal Muscat* is a small top-shaped fruit, with a roughish grey skin, inclining to brown next the sun. The flesh is white and coarsish, but the juice is sweet, musky, and tolerably agreeable.

The *Jargonelle* is a long top-shaped fruit, of a fine red colour next the sun, but very yellow on the shady side. The flesh is white, half breaking, tolerable fine, and the juice a little musky.

The *Melting Musk* is also a long top-shaped Pear, of a middling size. The skin is even, smooth,

smooth, of a grass-green round the apex, but of a yellowish one near the stalk. The flesh is melting, the juice high flavoured, and very musky.

The *Red Bergamot* is rather a smallish Pear, top-shaped, and flatted; next the sun it is of a yellow-red colour; the flesh is melting, the juice high flavoured, and very perfumed.

The *Swiss Bergamot* is a roundish Pear, with a tough, greenish-coloured skin, striped with red. The flesh is melting and full of juice, but is not so richly perfumed as the former. It ripens the beginning of October.

The *Late Bergamot*, *Colmar*, or *Manna Pear*, is somewhat like a Boncretien, but the head is flat, the eye large and deeply hollowed. It is thickest in the middle, sloping toward the stalk, which is short, thick and a little bent. The skin is green, with a few yellow spots, and sometimes it is a little coloured next the sun; the flesh is tender, and the juice greatly sugared.

The *Fig Pear* is a middling sized fruit, of a long top-shape. The skin is rather smooth, of a brownish-green when ripe, and the flesh white and melting. The juice is sweet, sugary, and heightened with a pleasant sharpness. Ripe the beginning of October.

The *German Muscat* is rather a long top-shaped Pear, much of the form of the Royal Winter, but more contracted near the eye; the skin too is of a more russet colour, and red on the sunny side. The flesh is melting, buttery, and a little musky.

The *Dutch Bergamot* is shaped like the Common Bergamot, but it is a larger fruit. The juice is highly flavoured, the skin greenish, and the flesh half buttery and tender.

The *St. Martial*, or the *Angelick Pear*, is oblong,
5 much

much the shape of the Boncretien, but it is not so large, and a little flatter at the crown. The stalk is very long, the skin smooth and yellowish, except next the sun, where it is generally purplish. The flesh is melting, the juice very rich, and a little perfumed. It is a late fruit, and counted one of the best yet produced.

The *St. Germain* is a large, long Pear, of a yellowish-green colour, and melting. In dry seasons it abounds with a sweet agreeable juice, and is a very good fruit, but in moist ones, or on damp soils, it is roughish and austere. It is in eating for about two months after Christmas.

The *Cbaumontelle Wilding* is rather a large Pear, and flatted at the crown. The skin is roughish, of a pale green colour, except on the sunny side, where it is purplish. The flesh is melting, the juice very rich, and a little perfumed. This is esteemed an excellent fruit, and is in eating from November to January.

The *Autumn Beauty* is a pyramidal-shaped Pear, with a tolerable smooth skin, of a fine deep red next the sun, speckled with grey. The shady side is partly red, but not so deep, and partly yellow, speckled with fawn colour. The flesh is white, breaking, sometimes half melting, the juice copious, and of a high flavour.

The *Good Lewis* is nearly of the shape of the *St. Germain*, but is not quite so pointed. The stalk is very short, a little bent, the skin very smooth, and the eye small. When ripe it is of a whitish-green colour, and if it grow upon a dry soil, the flesh will be very tender, and full of a rich sweet juice. It is in eating in December.

The *Grey Dean* is a middling-sized, roundish Pear; the skin smooth, of a greenish-grey colour, the

the flesh buttery, melting, and not subject to be woolly like the Yellow Dean. The juice is very sugary, and of a tolerable good flavour. It ripens in November.

The *Winter Thorn* is rather a large Pear, of a pyramidal figure, the skin smooth, of a whitish-green at first, but of a pale yellow when ripe. The stalk is short and slender; the flesh melting and buttery, the juice very sweet, and, if the season prove dry, highly perfumed. It ripens at the end of December.

The *Royal Winter* is a large top-shaped fruit, with a fine smooth, beautiful red skin on the sunny side, and when ripe, yellow on the other. It is often speckled with brown spots upon the red, and fawn-coloured upon the yellow. The flesh is inclining to yellow, is very fine, half buttery, melting, and on dry soils the juice is very sugary. It ripens in December.

The *Marchioness* is a large pyramidal Pear, of a green colour at first, with dots of a deeper green; but when ripe becomes yellow, and frequently with a slight tinge of red. The flesh is melting, buttery, the juice sweet, sugary, and sometimes a little musky. Ripe the beginning of December.

The *Winter Orange* is a middle-sized fruit, of the shape of an Orange. The skin is studded with small knobs, and is of a pale brown-green when ripe, with some little dots of a browner green. The flesh is white, fine, breaking, and the juice musky and agreeable. Ripens in February.

The *Dorville* is a middle-sized Pear, sharpish at both ends, the skin smooth and shining, of a deep lemon colour, and scattered with fawn-coloured spots on the shady side, but of a bright red, speckled with small grey dots on the other. The flesh is
inclining

inclining to yellow, it is breaking, and the juice is highly flavoured, with a little sharpness. Ripens in February.

The *Winter Russelet* is a small top-shaped Pear, with the skin partly greenish and partly reddish. The flesh is half breaking, copiously stored with juice, which is of a tolerable high flavour. Ripens at the end of February.

The *Beautiful Winter* is a pretty large fruit, and nearly round. The skin is smooth, and yellow on the shady side, speckled with fawn-colour; but on the sunny side it is of a beautiful red, speckled with bright grey. The flesh is tender, the juice copious, and of a pleasant sweetness. It ripens in February.

The *Sarasin* is the most valuable of all the Pears for duration, as it will keep sound both upon, or off the tree for twelve months. It is of a middle size, about a third part longer than broad, the shady side of a pale yellow when ripe, but the sunny side of a brownish red, speckled with grey. The flesh is white, almost buttery, the juice sugary, highly flavoured, and a little perfumed.

C L A S S II.

Pears which degenerate when grafted on Quince-stocks.

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|-----------------------------|----------------------------------|
| 1 <i>Messire John.</i> | 6 <i>The Little Lard.</i> |
| 2 <i>The Green Sugar.</i> | 7 <i>The Ronville.</i> |
| 3 <i>The Dauphine.</i> | 8 <i>The Gate.</i> |
| 4 <i>The Dry Martin.</i> | 9 <i>The Easter Bergamot.</i> |
| 5 <i>The Large-stalked.</i> | 10 <i>The Winter Boncretien.</i> |

The *White and Grey Messire John* are deemed one and the same fruit, the difference of their colour being

being occasioned by the soils they may grow in, or the stocks they may be grafted upon. It is a large roundish Pear, mostly having a brown, rough skin. If grafted on a free-stock, and planted in a moist soil, the flesh will be breaking, and copiously stored with a rich sugary juice; but on a Quince-stock it will be harsh and stony. Ripe in October.

The *Green Sugar* is shaped like the Winter Thorn, described in the former Class, but is smaller. The skin is very smooth, green, and the flesh buttery, sugared, and of a good flavour; but if grafted on a Quince-stock, it will be stony. It ripens at the beginning of November.

The *Dauphine*, or *Lansac*, is a top-shaped Pear, about the size of a Bergamot, flattened near the head, but a little lengthened near the tail. It is smooth, of a yellowish-green colour on the outside, yellow within, the flesh tender and melting, the juice sugared, and slightly perfumed. The eye is very large, and the stalk long and straight. It ripens in November, and if planted in a good soil, and grafted on a free-stock, it is one of the best table Pears then in season.

The *Dry Martin*, or *Champagne*, is much like the Russet both in shape and colour, but it is rather more oblong. The flesh is fine and breaking, and the juice sugared, with a slight perfume, and if grafted on a free-stock, is an excellent Pear. It comes in eating at the end of November.

The *Large-stalked* is a yellow, roundish Pear, with a very thick stalk, whence it had its name. The flesh is dry, breaking, and has a musky flavour; it is much improved by being planted in a moist soil, and grafted on a free-stock. It comes in eating with the former.

The

The *Little Lard*, or *Anjou Russet*, also the *Winter's Wonder*, is a middle-sized fruit, but is apt to vary in shape, it being sometimes nearly oval, and at others resembles a Bergamot. The skin is a little rough, greenish at first, but turns yellowish when ripe, and is sprinkled with little knobs. The stalk is long and slender, the eye large, and deeply hollowed; the flesh fine, buttery, and melting, the juice sugary, musky, and of an agreeable flavour, but is much hurt when grafted on a Quince-stock. It ripens at the beginning of November.

The *Ronville*, or *Lord Martin*, is about the size of a large Russet, but the middle of the Pear is mostly swelled more on one side than on the other, and the eye is hollowed a little. The skin is soft, very smooth, of a lively red next the sun, but when ripe, of a yellow on the other. The flesh is breaking, full of juice, which is very sweet, and a little perfumed. On a Quince-stock it is apt to be stony.

The *Gate* is a round Pear, and has a sweet, sugary juice, a little perfumed, if grafted on a free-stock, and planted in a rich soil; but in a dry soil, and upon a Quince-stock, it is good for nothing.

The *Easter Bergamot* is a large Pear, and nearly round, except towards the stalk, where it lengthens a little. The eye is flat, the skin at first green, but turns yellow when ripe, with small brown dots, and a tinge of red on the sunny side. The flesh is fine, inclining to yellow, and is buttery and melting. If grafted on a free-stock the juice is very sweet, sugary, and high flavoured. It ripens in January.

The *Winter Boncratic* is a very large Pear, of a pyramidal

pyramidal form, flat at the top, the skin very fine, of a bright yellow colour, inclining to green, but of a soft flesh-red on the sunny side. If planted in a good soil, and grafted on a free-stock, the flesh will be fine, tender, full of a sweet, sugary juice, of a perfumed, vinous flavour. Ripens in January.

C L A S S III.

Pears proper for Stewing and Baking.

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| 1 <i>Le Befidéri, or Heri.</i> | 6 <i>The Catillac.</i> |
| 2 <i>The Spanish Boncretien.</i> | 7 <i>The Double flowering.</i> |
| 3 <i>The Pound, or Lovely Pear.</i> | 8 <i>The Burnt Cat.</i> |
| 4 <i>The Winter Citron.</i> | 9 <i>The Pope's Pear.</i> |
| 5 <i>The Golden End of Winter.</i> | 10 <i>The Union.</i> |

The *Le Befidéri* is a middling-sized round Pear, of a pale green colour, inclining to yellow. The stalk is very long and slender, and the flesh dry. It ripens near the end of November.

The *Spanish Boncretien* is a large pyramidal fruit, of a pale yellow colour on the shady side, but of a fine lively red on the other. The skin is smooth, and all over speckled with small brown dots. The flesh is white, mixed with greenish spots, and it is either tender, hard, dry, or juicy, according to the soil, season, or stock it may be grafted on. Ripe at the end of November, or beginning of December.

The *Pound, or Lovely Pear*, also *Parkinson Warden*, is a large fruit, which commonly weighs a pound or more. The skin is rough, of a dull red

next

next the sun, but somewhat paler on the other side. The stalk is very short, and the eye much hollowed. Comes in season in December.

The *Winter Citron*, or *Musk Orange*, is a tolerable large Pear, nearly of the shape and colour of an Orange. It is an ordinary Pear for the table, but will bake well, and is in season with the former.

The *Golden End of Winter* is a very large fruit, almost of a globular form. The stalk is short, the skin yellow, spotted with red, the flesh dry, and very apt to be stony. Comes in season in January.

The *Catillac* is a large Pear, and nearly of the shape of a Quince. The skin is generally yellow, but turns to a deep red on the sunny side. The flesh is hard, the juice austere, yet it bakes well. Comes into use in January.

The *Double-flowering Pear* is a thick, short fruit, with a long, straight stalk. The skin is very smooth, of a yellowish colour, except on the sunny side, where it is mostly red or purple. It is a most excellent Pear for baking, and comes in season in February. The flower having two ranges of petals obtained it the name it goes by.

The *Burnt Cat* is rather a small Pear, of an oblong form. The skin is smooth and shining, reddish next the sun, but of a sort of lemon colour on the other. The flesh is tender, but dryish, and acquires in baking a beautiful red. It ripens in February.

The *Pope's Pear* is of a middling size, and common shape. The skin is roughish, yellow, or inclining to a cinnamon colour. The flesh tender, white, and mostly without stones.

The *Union* is a large, long Pear, of a reddish
U colour

colour next the sun, but of a deep green on the other side. It comes in season in January, is a good baking Pear, and a plentiful bearer.

- 6 PYRUS malus. *The Crab-tree.* Lin. *Sp. pl.* 686.

Pyrus foliis ferratis, pomis basi concavis. *Hort. Cliff.* 189.

- The *Crab-tree* is common in every part of England, and is the parent of all the *Apple-trees* at present cultivated. Its varieties are so exceedingly numerous, that it is impossible for any one clearly to ascertain them; for even in its wild state, almost every different soil and situation the seeds may chance to vegetate in, produce some small variation in the form; colour, or flavour of the fruit. It is remarkable that the *Crab*, or *Apple-tree*, though it exactly agrees in the generic characters of the fructification, with those of the *Pear* and *Quince*, yet it will not take when grafted upon either of them, nor they upon the *Apple*; which seem to indicate, that this genus is not a natural one *, and that nature has placed some boundary between the latter, and the two former, but

* This was a main argument with Miller for splitting the genus, and it was constantly contradicted by his own experience as a gardener; for he acknowledges the *Peach* to be a distinct genus from the *Plum*, and yet it is a common practice in the nursery to bud the former either upon the latter or upon an *Apricot*, and they are found to take very well.

such

such as is beyond our penetration to discover. Linnæus certainly, therefore, did right in placing them all under one genus, and not separate them, as Miller and others have done; as in any systematical arrangement, we must always be governed by what is plain and obvious in the structure of the plants, otherwise the design will be rendered abortive.

In setting down the varieties of the cultivated *Apple*, I shall describe only some of the most valuable ones, and divide them into two Classes: the first to contain such as are immediately adapted to the table, in order to be eaten raw; and the second to consist of those proper for boiling, baking, &c.

C L A S S I.

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|--------------------------------|---------------------------------------|
| 1 The <i>Summer Calville</i> . | 12 The <i>White Calville</i> . |
| 2 The <i>Anise</i> . | 13 The <i>Red Calville</i> . |
| 3 The <i>Common Codlin</i> . | 14 The <i>Aromatic Pippin</i> . |
| 4 The <i>Margaret</i> . | 15 The <i>Golden Pippin</i> . |
| 5 The <i>Summer Pearmain</i> . | 16 The <i>Violet Apple</i> . |
| 6 <i>Loan's Pearmain</i> . | 17 The <i>Hollow Crown'd Pippin</i> . |
| 7 The <i>Quince Apple</i> . | 18 The <i>Winter Rambour</i> . |
| 8 The <i>Russet Renet</i> . | 19 The <i>Great Faros</i> . |
| 9 The <i>French Renet</i> . | 20 The <i>Nonpareil</i> . |
| 10 The <i>Renet Grise</i> . | |
| 11 The <i>Red Renet</i> . | |

The *Summer Calville* is a middling-sized Apple, of a longish form, and the skin is streaked with red and white. The flesh is light and dry, of no

extraordinary flavour, but the fruit is esteemed for coming early.

The *Anise Apple* is a middling-sized fruit, of a greyish colour, and rather longer than a Golden Pippin. The flesh is tender, and hath a spicy flavour like Anise-seed or Fennel.

The *Common Codlin* is a large, early, good-flavoured Apple, and is too well known to require any description.

The *Margaret* is a middling-sized fruit, shorter than the Codlin, and the skin on the sunny side is of a faint red, the other side of a pale green. The flesh is firm, and of a pleasant flavour, but soon decays.

The *Summer Pearmain* is an oblong Apple, and is striped with red on the sunny side. The flesh is tender, but it soon becomes mealy.

Loan's Pearmain is a middle-sized Apple, of a beautiful red on the sunny side, and is striped with red on the other. The flesh has a vinous, quick flavour, but it soon grows mealy.

The *Quince Apple* has its name from its shape, which is like that of a Quince. It is about the size of a Golden Pippin, but of a longer form, especially near the stalk. It is of a russet colour on the sunny side, and inclining to a yellow on the other. The flavour is very agreeable.

The *Russet Renet* is a small fruit. Its name speaks its colour. It will keep a long time, and the flesh has a high flavour.

The *French Renet* is a large, roundish, yellowish-green Apple, dotted with small grey spots. The juice is sugary, and of a good flavour. This is an excellent fruit for keeping.

The *Renet Grise* is a middle-sized Apple, and is shaped like the Golden Renet; it is of a deep grey

grey colour on the sunny side, but mixed with yellow on the other. The flesh is very juicy, and of a quick flavour.

The *Red Rennet* is somewhat rounder than the former, and of a beautiful red colour, on a whitish ground. The flesh is firm, and the juice sugary. It seems to be only a variety of the French Rennet.

The *White Calville* is a large, white, squarish Apple. The flesh has a high flavour, without any acid. It will keep a long time, which makes it much esteemed.

The *Red Calville* is a large, red fruit, and longer than round. The flesh of this is sometimes reddish, and has a fine vinous flavour.

The *Aromatic Pippin* is near the size of the Nonpareil, but a little longer. The side next the sun is of a bright russet colour. The flesh is tender, and hath an aromatic flavour.

The *Golden Pippin* is a middle-sized fruit, of a yellow-gold colour, and is rather longer than round. It is dotted with small red spots. Its juice is sugary, and very high-flavoured.

The *Violet Apple* is a pretty large fruit, of a greenish white, striped with a deep red on the sunny side. The flesh is white, very fine, and the juice sugary, with some faint flavour of a violet.

The *Hollow-crowned Pippin* is a middling-sized Apple, and very hollow at the top, whence its name.

The *Winter Rambour* is a very large fruit, and nearly round. It is quite green, and the juice has a sharp acid taste.

The *Great Faros* is a large, flattish Apple, streaked with red. The flesh is breaking, and plentifully stored with juice.

The *Nonpareil* is a smallish sized fruit, rather
 U 3 copical,

conical, of a russet-green colour, a little inclining to red on the sunny side. The flesh has a fine flavour, and is much esteemed.

C L A S S II.

Apples proper for boiling, baking, &c.

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|---|----------------------------------|
| 1 The <i>Summer Rambour</i> . | 6 The <i>Holland Pippin</i> . |
| 2 The <i>Kentish Fill-Basket</i> . | 7 The <i>Embroidered Apple</i> . |
| 3 The <i>Golden Rennet</i> . | 8 The <i>Royal Russet</i> . |
| 4 The <i>Hertfordshire Pear-</i>
<i>main</i> . | 9 <i>Wheeler's Russet</i> . |
| 5 The <i>Kentish Pippin</i> . | 10 <i>Pile's Russet</i> . |

The *Summer Rambour* is a very large fruit, and rather flatter than the *Winter Rambour*. The skin is white, with some few streaks of red. It comes early, and is an excellent Apple for stewing.

The *Kentish Fill-Basket* is a large sort of Codlin, but is longer than the Common Codlin. This is a good baking Apple.

The *Golden Rennet* is proper either for eating raw, or baking.

The *Hertfordshire*, or *Winter Pearmain*, is a tolerable sized fruit, rather longer than round. It is of a fine red on the sunny side, and striped with the same colour on the shady one. The flesh is juicy, and it stews well.

The *Kentish Pippin* is a large, oblong Apple, of a pale green colour. The flesh is juicy and breaking, of a quick acid flavour, and it boils well.

The *Holland Pippin* is both a larger and longer Apple than the former, and the skin is of a darker green

green colour. It is firm and juicy, and boils well.

The *Embroidered Apple* is a largish fruit, and somewhat resembles the Winter Pearmain, but the stripes of red are broader. It is used as a kitchen Apple.

The *Royal Russet*, or *Leather Coat*, is a large, oblong Apple, with a deep russet-coloured skin. This is an excellent fruit for boiling, and a good one to eat raw.

Wheeler's Russet is a flat, middling-sized Apple. The side next the sun is of a pale russet-colour, the other is inclining to yellow. The juice has a very quick acid flavour, and it boils well.

Pile's Russet is of an oval figure, and is a smaller Apple than the former. The skin is of a russet-colour on the sunny side, and of a dark green on the other. The flesh has a quick acid taste, and it is a good fruit for baking.

There is a large number of valuable Apples yet remaining, but their appellations are so various in different places, that it is impossible to describe them by any certain general names. Those commonly used for the making Cyder are the following :

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| 1 The <i>Red Streak</i> . | 5 The <i>John Apple</i> . |
| 2 The <i>Devonshire Royal</i> | 6 The <i>Everlasting</i> |
| <i>Wilding</i> . | <i>Hanger</i> . |
| 3 The <i>Whitfour</i> . | 7 The <i>Gennet Moyle</i> . |
| 4 The <i>Hertfordshire Underleaf</i> . | 8 The <i>Cat's Head</i> . |

7 PYRUS cydonia. *The Quince-tree*. Lin. Sp. pl. 687.

Malus cotonea sylvestris. *Baub. Pin.* 434.

The *Quince-tree* grows naturally on the banks of the river Danube, in Hungary. It is a rather smaller tree than the Crab. The leaves are nearly of the same shape, but have more prominent ribs, and are whiter on their under side. The flowers come out singly, and the calyx is serrated, spreading, and of the length of the petals. The fruit is very well known. The varieties of it are, the *Pear* and *Portugal Quince*. The last is deemed the best, and is the sort now most generally cultivated. The flesh of this is less austere than the other, of the finest purple colour when stewed, and it makes the most agreeable and best flavoured Marmalade.

Quinces are very astringent; employed medically they strengthen the stomach, and stop fluxes of the bowels. A syrup is frequently made of the juice, and prescribed for these purposes. The bruised seeds impart a very strong mucilage to any watery liquor, which makes an excellent gargarism for sore mouths. An ounce will render three pints of water as ropy as the whites of Eggs.

C H A P. VIII.

LEGUMINOUS * PLANTS.

S E C T. I.

Pods and Seeds of Herbaceous Plants.

- 1 **A**RRACHIS hypogæa. *American Ground Nut.*
- 2 Cicer arietinum. *The Chick Pea, or Gravances.*
- 3 Dolichos soja. *East India Kidney Bean.*
- 4 Ervum lens. *Lentil.*
- 5 Lotus edulis. *Incurved-podded Bird's-foot Trefoil.*
- 6 Lotus tetragonolobus. *Square Podded Crimson Pea.*
- 7 Lupinus albus. *White-flowering Lupine.*
- 8 Phaseolus vulgaris. *Common Kidney Bean.*
 — coccineus. *Scarlet-flowering Kidney Bean.*
 — albus. *White-flowering Kidney Bean.*
- 9 Pisum sativum. *Common Garden Pea.*

* A Legumen is a pod with two valves, inclosing a number of seeds that are fastened along one future only.

Pisum

Pisum umbellatum. Rose, or Crown Pea.

— *quadratum*. Angular-stalked Pea.

10 *Pisum Americanum*. Cape, or Lord Anson's Pea.

11 *Pisum maritimum*. Sea Pea.

12 *Vicia faba*. Common Garden Bean.

— *minor*. The Horse Bean.

I *ARRACHIS hypogæa*. American Ground Nut. *Lin. Sp. pl.* 1040.

This is an annual plant, and a native of Brasil and Peru. The stalks are long, trail upon the ground, and are furnished with winged leaves, composed of four hairy lobes each. The flowers are produced singly on long peduncles; they are yellow, of the pea kind, and each contains ten awl-shaped stamina, nine of which are tyed together, and the upper one stands off. In the centre is an awl-shaped style, crowned with a simple stigma. The germen is oblong, and becomes an oval-oblong pod, containing two or three oblong blunt seeds.

This plant is cultivated in all the American Settlements for the seeds, which make a considerable part of the food of the slaves. The manner of perfecting them is very singular, for as the flowers fall off, the young pods are forced into the ground by a natural motion of the stalks, and there they are entirely buried, and not to be discovered without

without digging for them, whence they have taken the name of *Ground Nuts*.

2 *CICER arietinum*. *Chick Pea*. *Lin. Sp. pl.* 1040.

Cicer sativum. *Baub. Pin.* 347.

The *Chick Pea* grows naturally among the corn in Spain and Italy, and it is much cultivated in these places for the table. It is an annual, sending up several hairy stalks, near two feet high, which are set with pinnated leaves, composed of eight or nine pair of oval, serrated pinnæ, with an odd one at the end. The flowers are small and whitish, are of the pea kind, mostly but one on a peduncle, have ten stamina each, nine of which are joined together, and the tenth stands off. The germen is oval, and becomes a turgid, hairy, rhomboidal pod, containing two roundish seeds, of the size of common peas, each having a protuberance on the side.

Though these Peas are common at table in Spain and Italy, they would badly suit an English stomach, being far from delicate, but are strong, flatulent, and hard of digestion. There are two varieties of this plant, one with red, and the other with black seeds. It is much cultivated in Barbary, by the name of *Gravances*, and is counted one of their best sorts of pulse.

3 *DOLICHOS soja.* *Indian Kidney Bean.*
Lin. Sp. pl. 1023.

This is a perennial, and a native of India. It sends up an erect, slender, hairy stalk, to the height of about four feet, furnished with leaves much like those of the Common Kidney Bean, but more hairy underneath. The flowers are produced in erect racemi, at the bosoms of the leaves; they are of the pea-kind, of a bluish white colour, and are succeeded by pendulous, hairy pods, resembling those of the Yellow Lupine, each containing three or four oval, white seeds, a little larger than peas.

This plant is much cultivated in Japan, where it is called *Daidzu*, and where the pods supply their kitchens for various purposes; but the two principal are with a sort of butter, termed *Miso*, and a pickle, called *Sooju* or *Soy*.

The *Miso* is made by boiling a certain quantity of the beans for a considerable time in water, till they become very soft, when they are repeatedly brayed with a large quantity of salt, till all is incorporated. To this mass they add a certain preparation of Rice, named *Koos*, and having well blended the whole together, it is put into a wooden vessel, where in about two months it becomes fit for use, and serves the purposes of butter. The manner of preparing the *Koos* is a kind of secret business, and is

in the hands of some certain people only, who sell the *Koos* about the streets, to those who make *Miso*.

In order to prepare *Sooju* they take equal quantities of beans, wheat, or barley-meal, and boil them to a pulp, with common salt. As soon as this mixture is properly incorporated, it is kept in a warm place for twenty-four hours to ferment; after which the mass is put into a pot, covered with salt, and a quantity of water poured over the whole. This is suffered to stand for two or three months, they never failing to stir it well at least once a day, if twice or thrice it will be the better; then the liquor is filtered from the mass, and preserved in wooden vessels, to be used as occasions require. This liquor is excellent for pickling any thing in, and the older it is the better.

4 ERVUM lens. *The Lentil. Lin. Sp. pl.* 1039.

Lens vulgaris. *Baub. Pin.* 346.

The *Lentil* is a common weed in the corn-fields in France. It is an annual, and sends up several weak stalks, about half a yard high, putting forth winged leaves at the joints, each being composed of many pair of narrow lobes, and the midrib ending with a tendril. The flowers come out from the sides of the branches, two or three together on a short common peduncle; they are small,

small, of the pea-kind, of a pale purple colour; contain ten stamina each, nine of which are united, and the tenth stands off. The germen is oblong, and becomes a jointed, taper pod, containing three or four round, convex seeds.

Lentils are a strong, flatulent food, very hard of digestion, and therefore are seldom used now but to boil in soups, in order to thicken them.

* 5 *Lotus edulis*. *Incurved-podded Birds-foot Trefoil*. *Lin. Sp. pl.* 1090.

Lotus pentaphyllos, *siliqua cornuta*. *Bauh. Pin.* 332.

It sends forth several trailing stalks about a foot long, furnished at their joints with trifoliate, roundish, smooth leaves, having oval stipulæ. The flowers come singly from the sides of the stalks, on long peduncles, with three oval floral-leaves, the length of the flower; the latter is small, yellow, and is succeeded by a thick arched pod, having a deep furrow on its outside.

The plant is an annual, and a native of several parts of Italy, where the inhabitants eat the young pods as we do Kidney Beans.

6 *Lotus tetragonolobus*. *Square-podded Pea*. *Lin. Sp. pl.* 1089.

Lotus ruber, *siliqua angulosa*. *Bauh. Pin.* 332.

This is a native of Sicily, and being rather an ornamental plant, has been long cultivated in the English gardens. It is an annual, sending out several decumbent stalks, about a foot long, furnished with dark green, trifoliate leaves, having two appendages at the base of their footstalks. The flowers spring alternately from the joints of the stalks, and each is supported on a long peduncle; they are of the pea kind, of a dark red colour, and are succeeded by long taper pods, having four longitudinal, leafy membranes, which render them square.

The green pods of this plant were formerly gathered, and dressed in the manner of Kidney Beans, and are used so still in some of the northern counties of England; but they are coarse, and not very agreeable to such as have been accustomed to feed upon better fare.

7 LUPINUS albus. *White Lupine.* Lin.
Sp. pl. 1015.

Lupinus sativus, flore albo. *Baub. Pin.*
347.

This grows naturally in the Levant, is an annual, and puts forth a thick, erect stalk, near two feet high, which branches towards the top, and is furnished with compounded leaves, made up of seven or eight oblong, greyish-green, hairy lobes, joined to the top of the footstalk by their tails, and are covered

covered with a silvery down. The branches are terminated by loose spikes of white flowers, having little or no peduncles; they are of the pea kind, and are followed by straight, compressed, hairy pods, about three inches long, each containing five or six flat-tish white seeds, having a scar like a navel.

This plant is cultivated in some parts of Italy, as an esculent pulse, but the seeds have a bitter disagreeable flavour.

8 *PHASEOLUS vulgaris*. *Kidney Bean*.
Lin. Sp. pl. 1016.

Smilax hortensis five *Phaseolus major*.
Baub. Pin. 339.

The *Common Kidney Bean* is a native of both the Indies, and is well known by being cultivated almost all over Europe. The varieties of it are very numerous, but to describe them all would answer no good purpose, as many of them are very ordinary, and not fit for the table. Those generally intended for an early crop are the *White Dwarf*, the *Black Dwarf*, and the *Liver-coloured*; but the most valuable ones, though but seldom cultivated, are the *Scarlet-blossomed*, with purple seeds spotted with black, and the *White-blossomed*, with white seeds.

9 *PISUM sativum*. *The Pea*. *Lin. Sp. pl.* 1026.

This is a native of England, and, like all plants

plants that are in constant cultivation, is now run into many varieties. The names of those generally raised for the table are,

- | | |
|--------------------------------|------------------------------|
| 1 The <i>Golden Hotspur</i> . | 9 The <i>Nonpareil</i> . |
| 2 The <i>Charlton</i> . | 10 The <i>Dwarf Sugar</i> . |
| 3 The <i>Reading Hotspur</i> . | 11 The <i>Sickle Pea</i> . |
| 4 <i>Master's Hotspur</i> . | 12 The <i>Marrowfat</i> . |
| 5 The <i>Essex Hotspur</i> . | 13 The <i>Rose, or Crown</i> |
| 6 The <i>Dwarf Pea</i> . | Pea. |
| 7 The <i>Sugar Pea</i> . | 14 The <i>Rouncival</i> . |
| 8 The <i>Spanish Morotto</i> . | |

10 *Pisum Americanum*. Lord Anson's Pea.

The seeds of this Pea were brought to England by Lord Anson's cook, who collected them when they were at Cape Horn, in South America. It hath weak trailing stalks, furnished with compound leaves, that have two lobes on each footstalk; those below are spear-shaped, and sharply indented on their edges, but the upper ones are small and arrow-pointed. The flowers are blue, and come out by three or four on a common peduncle, and are succeeded by taper pods, containing several small peas, about the size of Tares.

These Peas are not valuable for their flavour, being inferior to any of our cultivated sorts, but they proved very beneficial to the sailors in their voyage, who when they met with them were greatly afflicted

with the scurvy, and stood much in need of some sorts of vegetables.

II PISUM maritimum. *Sea Pea. Lin. Sp. pl. 1027.*

Pisum marinum. Raii Hist. 892.

The *Sea Pea* grows wild on our sea-coast, where its roots penetrate to a considerable depth, and also spread in various directions for several feet just under the surface. The stalk is angular, usually lodges on the ground, and grows to near a yard in length. The leaves on the main stalks stand by pairs, but those on the branches are pinnated, having three or four pair of oval lobes each, and their midrib is terminated with a branched tendril. The flowers finish the stalks in clusters of eight or ten on a common peduncle; they are smaller than those of the garden Pea, and are of a pale purple, tinged in the middle with a bluish purple. The Peas have a bitterish, disagreeable taste, and therefore whilst more pleasant food is to be obtained, these are rejected; but in times of scarcity they have been the means of preserving thousands of families from perishing, the delicacy of flavour at such times weighing little with a keen appetite. Both *Stowe* and *Camden* relate, that in the year 1555, being a year of great dearth, the people collected large quantities of these peas between Orford and Aldborough, in

Suffolk,

Suffolk, upon a barren heath, where even grafs would not grow; and as they never had observed any fuch plant as this there in the time of their fullnefs, when the eye is carelefs, they attributed their fpringing up then as a pure miracle, to keep the poor from ftarving, though in all probability they had been growing thereabouts for centuries before.

12 *VICIA faba.* *The Broad Bean.* *Lin. Sp. pl.* 1039.

The *Common Broad Bean* is a native of Egypt, and like the Pea is now run into many varieties, which have their diftinguifhing appellations among the gardeners, as,

- | | |
|-----------------------------|---------------------------|
| 1 <i>The Mazagan.</i> | 5 <i>The Sandwich.</i> |
| 2 <i>The Portugal.</i> | 6 <i>The Taker.</i> |
| 3 <i>The Small Spanifh.</i> | 7 <i>The Windfor, and</i> |
| 4 <i>The Broad Spanifh.</i> | 8 <i>The Muntford.</i> |

Which laft is a fmall fort of the *Windfor*. The only variety taken notice of by Linnaeus is the *Horfe-bean*, and even this now is run into many variations. Thefe are not eaten in England, but our Merchants fhip them for Africa, where they are bought as fupport for the flaves in their voyage to the *West Indies*.

The diftill'd water of the flowers of *Beans* has been held in great efteem as a good cosmetic among the Ladies.

S E C T. II.

Pods and Seeds of Trees.

- 1 **C**ASSIA fistula. *Sweet Cassia, or Pudding-pipe Tree.*
- 2 Ceratonia Siliqua. *Carob, or St. John's Bread.*
- 3 Coffea Arabica. *Arabian Coffee.*
- 4 Coffea occidentalis. *American Coffee.*
- 5 Cytisus cajan. *Pigeon Pea.*
- 6 Epidendrum vanilla. *Sweet-scented Vanilla.*
- 7 Hymenæa courbaril. *Bastard Locust Tree.*
- 8 Tamarindus indica. *The Tamarind.*

1 **C**ASSIA fistula. *Sweet Cassia. Lin. Sp. pl. 540.*

Cassia fistula Alexandrina. Baub. Pin. 405.

This is a native of Alexandria, and both the Indies. It is a large tree, sometimes reaching to fifty feet high, having a thick trunk, which divides into many branches, furnished with winged leaves, composed of five pair of smooth, spear-shaped lobes. The flowers come forth in long spikes at the ends of the branches, sustained on long peduncles;

peduncles; they are yellow, and each consists of five large concave petals, surrounding ten stamina, the three lower of which are long, and tipped with arched, beaked, gaping summits. In the centre is seated a long taper germen, which becomes a pod divided into many cells by transverse partitions, and is from one to two feet long, with a seam running the whole length on one side, and the mark of one on the other. The partitions of the pod are covered with a black sweet pulp, which is agreeable, but purgative.

There are two sorts of *Cassia* kept in the shops, one brought from the East Indies, and the other from the West. The pods of the latter are mostly large, thick rind, and contain a nauseous pulp; those of the former are generally smaller, smoother, the pulp blacker, and of a sweet and more pleasant taste. The pulp is the part used in medicine, and is frequently ordered either alone or in composition against costive habits of body. The young tender pods, when about the size of small Kidney Beans, are preserved with sugar in the Indies, and pod, pulp and all, eaten in the above disorders.

2 CERATONIA filiqua. *Carob-tree. Lin. Sp. pl.* 1513.

Siliqua edulis. Baub. Pin. 400.

This tree grows naturally in many places
X 3 of

of the Levant, and also in some parts of Spain and Italy, as is asserted, but this seems doubtful. It is male and female in distinct trees, and grows to a large size. The body is covered with an ash-coloured bark, and the branches are furnished with winged, oval-lobed leaves, terminated by an odd one. The male flowers have no petals, but each consists of a large calyx, cut into five parts, and contains five long, awl-shaped stamina, tipped with large twin summits. The female flowers also have no petals, but a fleshy germen situated within the receptacle, which becomes a long, fleshy, compressed pod, divided into several cells, each containing one large, roundish, compressed seed.

These pods are thick, mealy, and of a sweetish taste, and are eaten by the poor inhabitants in times of scarcity; but they are apt to pain the bowels, and prove purgative. They are called *St. John's Bread*, from an assertion of some writers on Scripture, that these pods were the *Locusts* St. John eat with his honey in the Wilderness. But Dr. Hasselquist has sufficiently refuted this wild conceit, he observing that the animals, called *Locusts*, are plentifully eaten to this day in the places where St. John was, and it is not to be doubted but they were the food he is said to have been supported with.

3 COFFEA Arabica. *Arabian Coffee.*
Lin. Sp. pl. 245.

This is supposed to be a native of Arabia Felix, where it is greatly cultivated. It is but a small tree, seldom growing above fifteen or eighteen feet in its natural state, but the planters crop it, and scarcely suffer it to reach six. The stem is covered with a light brown bark, and the branches diverge opposite each other in an horizontal direction; they are furnished with numerous beautiful, sharp-pointed leaves, somewhat resembling those of the Sweet Chestnut. The flowers are produced in clusters at the base of the leaves, sitting close to the branches, and each consists of a funnel-shaped petal, having a cylindrical tube, and is cut at the brim into five parts. They are white, have a most grateful smell, but are of short duration. In the tube of the flower are inserted five awl-shaped stamina, and below is a roundish germen, which turns to an oval berry, containing two oval seeds, which are plain on one side, and convex on the other.

4 COFFEA occidentalis. *American Coffee.*
Lin. Sp. pl. 246.

Pavetta foliis oblongo-ovatis oppositis, stipulis setaceis. Browne's Jam. 142. t. 6. f. 1.

This is a native of America, and it differs
 X, 4 from

from the former in the flower being cut into four parts, and in the berry containing but one seed.

Of these two sorts of *Coffee*, the Arabian is to be preferred, as having the most grateful flavour when infused. They are both of a drying nature, and are therefore good in disorders of the head, proceeding from fumes and moisture. They also promote digestion, and remove drowsiness, but their frequent use is forbidden in thin hectic constitutions, as they are apt to dry the nerves of such persons, and bring on tremblings.

5 CYTISUS cajan. *Pigeon Pea. Lin. Sp. pl.* 1041.

Laburnum humilium, filiqua inter grana et grana juncta, semine esculento. *Sloane's Jam.* 139. *Hist.* 2. p. 31.

This is a native of India, but is now cultivated in almost all the American islands. It is a shrubby tree, and seldom exceeds ten feet in height. The leaves stand three together upon a common footstalk, two of which are sessile and opposite, and the middle one is protruded beyond them. They are woolly, and nearly lance-shaped. The flowers come out in racemi from the sides of the branches, are of the pea kind, of a deep yellow colour, about the size of the common Laburnum, and are succeeded by
hairy,

hairy, fickle-shaped pods, about three inches long, ending in an acute point. These are of a russet colour, and each contains several roundish kidney-shaped seeds, which have a slight astringent taste; but when boiled they afford an agreeable and nutritious food.

This tree is of great utility to the inhabitants of the West Indies, for it not only furnishes them with a wholesome diet, but also affords a constant support for their Pigeons, whence the name of *Pigeon Pea*.

6 EPIDENDRUM vanilla. *Sweet-scented Vanilla. Lin. Sp. pl. 1347.*

Epidendrum scandens, foliis elliptico ovatis nitidissimis subsessilibus, inferioribus claviculis jugatis, superioribus oppositis. Browne's Jam. 326.

This is a parasitical plant, and grows naturally in both the Indies, where it climbs up the bodies of trees by means of its spiral tendrils, shooting its fibres into the bark in manner of our ivy. The leaves are oblong-heart-shaped, of a bright green colour on the upper side, of a paler one on the other, and have several prominent veins running through them. They are produced alternately at every joint, and have no footstalks. The flowers are of a yellowish-green colour, mixed with white; they have no calyx, but each is composed of five spreading, oblong petals, included in a sheath, sitting

sitting upon the germen. These have top-shaped nectariums on their backs, and their brims are oblique, and bifid, except the upper one, which is short and trifid. The germen is slender, twisted, and seated under the flower, supports a short style, having two stamina sitting upon it, is crowned by an obsolete stigma, and is fastened to the upper lip of the flower. It swells to a long, taper, fleshy pod, including many small seeds.

These pods are six or seven inches long, of a reddish colour, wrinkled, and very oily. They contain a pulp that smells like Balsam of Peru, of an aromatic taste, and is made use of by the manufacturers of Chocolate to give it a flavour. As these pods furnish an article of trade, the inhabitants collect them just as they turn ripe, and in order to preserve them for sale, they first lay them in heaps for two or three days to ferment, after which they are spread in the sun, and when about half dried, they flat them, and rub them over at the same time with the oil of Palma Christi. This done, they are again exposed to the sun, and being once more rubbed with the same oil, they are covered over with the leaves of the Canna Indica, and are then properly prepared for market. *Vanillas* are deemed cordial, good to strengthen the stomach, help digestion, dissipate wind, and to fortify the brain.

7 HYMENÆA courbaril. *Bastard Locust-tree.* *Lin. Sp. pl.* 537.

Arbor filiquosa ex qua Gummi Elemi, *Baub. Pin.* 404.

This is a large tree, growing naturally in the Spanish West Indies. The trunk is covered with a light ash-coloured bark, is often more than sixty feet high, and three in diameter. The branches are furnished with dark green leaves, which stand by pairs on one common footstalk, diverging from their base in manner of a pair of shears, when opened. The flowers come out in loose spikes at the ends of the branches, and are yellow, striped with purple. Each consists of five petals, placed in a double calyx, the outer leaf of which is divided into five parts, and the inner one is cut into five teeth at its brim. In the centre are ten declining stamina, longer than the petals, surrounding an oblong germen, which becomes a thick, fleshy, brown pod, four or five inches long, and one broad, with a suture on both edges, and includes three or four purplish seeds, somewhat of the shape of Windsor Beans, but smaller.

The seeds are covered with a light brown sugary substance, which the Indians scrape off and eat with great avidity, and which is very pleasant and agreeable.

At the principal roots under ground is found collected in large lumps a yellowish-red,

316. L E G U M E N S.

red, transparent gum, which dissolved in rectified spirit of wine affords a most excellent varnish, and is the gum *Anime* of the shops, not the gum *Elemi* *.

8 TAMARINDUS indica. *The Tamarind.*
Lin. Sp. pl. 48.

Siliqua Arabica, quæ Tamarindus. *Baub.*
Pin. 403.

The *Tamarind* is a pretty large tree, growing naturally in both the Indies, but those in the East produce the best and largest fruit. The trunk is covered with a brown bark, and spreads into many branches at the top, plentifully furnished with long, slender, pinnated leaves, the lobes of which are very narrow, and not above half an inch long; these are of a bright green colour, a little hairy, and sit close to the midrib. The flowers are produced from the sides of the branches, in small clusters of six or eight together upon a common peduncle. Each has a calyx composed of five equal, oval leaves, surrounding five reddish petals, so disposed as to resemble a pea-flower, but they contain only three awl-shaped stamina, seated in the sinuses of the calyx, and are arched towards the upper petal. The germen is

* This gum has been generally, though wrongfully, supposed to be the gum *Elemi*, but that is the gum of a tree called *Amyris Elemifera*, and is of a much paler colour than the *Anime*.

an oblong-oval, and supports a slender ascending style, crowned by a single stigma.

The pods when fully grown are from three to six inches long, and filled with a stringy, acid pulp, surrounding several hard seeds. This pulp is of a cooling laxative nature, is good to quench thirst, allay immoderate heat, and is an ingredient in the Lenitive Electuary of the shops.

C H A P. IX.

ESCULENT GRAIN AND SEEDS.

S E C T. I.

The various Sorts of Wheat.

LINNÆUS comprehends all the sorts of *Wheat* at present cultivated, under the six following species :

- 1 *Triticum æstivum.* *Summer, or Spring Wheat.*
- 2 *Triticum hybernum.* *Winter, or Common Wheat.*
- 3 *Triticum turgidum.* *Short thick-spiked Wheat.*
- 4 *Triticum Polonicum.* *Poland Wheat.*
- 5 *Triticum spelta.* *German, or Spelt Wheat.*
- 6 *Triticum monococcum.* *St. Peter's Corn.*

Cultivation has produced so many varieties from these six species, that the most curious examiner cannot fix with certainty to which of them they individually belong ; but such as are not to be doubted, shall be mentioned after the description of each species.

I TRITICUM

1 *TRITICUM æstivum*. *Spring Wheat*.
Lin. Sp. pl. 126.

Triticum radice annua, spica glabra aristata. Roy. lugdb. 70.

This hath four flowers in a calyx, three of which mostly bear grain. The calyces stand pretty distant from each other on both sides a flat, smooth receptacle. The leaves of the calyx are keel-shaped, smooth, and they terminate with a short arista. The glumes of the flowers are smooth and bell-shaped, and the outer leaf of three of the glumes in every calyx is terminated by a long arista, but the three inner ones are beardless. The grain is rather longer and thinner than the common Wheat. It is supposed to be a native of some part of Tartary. The farmers call it *Spring Wheat*, because it will come to the sickle with the Common Wheat, though it be sown in February or March. The varieties of it are:

Triticum æstivum spica et grana rubente. Spring Wheat, with a red spike and grain.

Triticum æstivum rubrum, spica alba. Red Spring Wheat, with a white spike.

Triticum æstivum, spica et grana alba. Spring Wheat, with a white spike and grain.

2 *TRITICUM hybernum*. *Common Wheat*.
Lin. Sp. pl. 126.

Triticum

Triticum radice annua, spica mutica.
Roy. lugdb. 70.

This hath also four flowers in a calyx, three of which are mostly productive. The calyces stand on each side a smooth, flat receptacle, as in the former species, but they are not quite so far asunder. The leaves of the calyx are bellying, and so smooth, that they appear as if polished, but they have no arista. The glumes of the flowers too are smooth, and the outer ones near the top of the spike are often tipped with short arista. The grain is rather plumper than the former, and is the sort most generally sown in England, whence the name of *Common Wheat*. Its varieties are :

Triticum hybernum, spica et grana rubente. Common Wheat, with a red spike and grain.

Triticum hybernum rubrum, spica alba. Common Red Wheat, with a white spike.

Triticum hybernum, spica et grana alba. Common Wheat, with a white spike and grain.

3 *TRITICUM turgidum.* *Thick-spiked Wheat.* *Lin. Sp. pl. 126.*

Triticum radice annua, glumis villosis.
Roy. lugdb. 70.

This species is easily distinguished from
 3 either

either of the former, for though it has four flowers in a calyx after the manner of them, yet the whole calyx and the edges of the glumes are covered with soft hairs. The calyces too stand thicker on the receptacle, which make the spike appear more turgid. Some of the outer glumes near the top of the spike are terminated by short aristæ, like those of the Common Wheat. The grain is shorter, plumper, and more convex on the back, than either of the former species. Its varieties are numerous, and have various appellations in different counties, owing to the great affinity of several of them. Those most easily to be distinguished are :

Triticum turgidum conicum album. White Cone Wheat.

Triticum turgidum conicum rubrum. Red Cone Wheat.

Triticum turgidum aristiferum. Bearded Cone Wheat.

Triticum turgidum, spica multiplici. Cone Wheat, with many ears.

The third variety is what the farmers call Clog Wheat, Square Wheat, and Rivets. The grain of this is remarkably convex on one side, and when ripe the awns generally break in pieces and fall off. This sort is very productive, but it yields an inferior flour to what the former two species do.

4 TRITICUM Polonicum. *Poland Wheat.*
Lin. Sp. pl. 127.

This has some resemblance to the turgidum, but both grain and spike are longer. The calyx contains only two flowers, and the glumes are furnished with very long aristæ. The teeth of the midrib are bearded. As this sort is seldom sown in England, there is no telling what varieties it produces.

5 TRITICUM spelta. *Spelt Wheat.* *Lin. Sp. pl.* 127.

Zea dicoccos vel spelta major. *Baub. Pin.* 22.

At first view this has a great resemblance to Barley, but it has no involucre. The calyx is truncated, that is, it appears as if the ends were snipped off, and it contains four flowers, two of which are hermaphrodite, and the glumes bearded, but the intermediate ones are neuter. There are two rows of grain as in Barley, but they are shaped like Wheat. It is much cultivated in France, Germany, and Italy, but neither the native place of this, nor of the former three species is yet known.

6 TRITICUM monococcum. *St. Peter's Corn.* *Lin. Sp. pl.* 127.

Zea, Briza dicta five monococcos germanica. *Baub. Pin.* 21.

This

This has three flowers in each calyx, alternately bearded, and the middle one neuter. The spike is shining, and has two rows of grain in the manner of Barley. Where it grows naturally is not known, but it is cultivated in Germany, and in conjunction with Spelt Wheat is there made into bread, which is coarse, and not so nourishing as that made of Common Wheat. Malt made of any of our Wheats is often put into Beer, and a small quantity of it will give a large Brewing a fine brown, transparent tincture.

Before I quit this article of Wheat, I shall make an observation or two that may prove of some benefit to the generality of Farmers. The common allowance of seed to sow an acre, is not less than three bushels, a quantity, as Miller observes, which is certainly too much, but not perhaps altogether for the reasons he gives. If the husbandman has ten coombs per acre, for his three bushels of seed, he thinks he has had an excellent crop, nor does he set himself about reflecting how much missed coming to perfection. Now if all the grain he sowed, vegetated, and produced only two tolerable good ears each, and each ear contained only forty grains, (which is rating them full low) the produce of one grain sown would be 80, and the increase from the three bushels would be 240 bushels, or

Y 2

60 coombs;

60 coombs ; consequently when he reaps but 10 coombs, he has the profit of only half a bushel of his seed. It stands the farmer in hand then to be careful about sowing his seed-corn, and not throw it away to birds and other vermin, and which he frequently does by sowing it too late. In order to prevent the ravages of these creatures, he ought to have all his Wheat into ground by the end of October at longest, before the birds find a scarcity of food ; for while there remains any part of the last year's offal on the fields, they will not trouble themselves much about the new sown grain ; but as soon as they feel themselves pinched, they repair by flights to the fresh sown lands, and pick up all they can possibly get at ; and though the seeds in general may have vegetated, yet if they be not strongly rooted, they make little difficulty of pulling them up by their leaves, and then twitch off the grain. Several sorts of birds are dexterous at this business, but Larks in particular are quite adepts at it ; a small parcel of them will soon make a place as bare as it was before sown. Now this waste never happens when there is plenty of food for these animals, nor can it be performed when the corn is much advanced, it then requiring more than their strength to draw it up, so that if it be sown in time, and before these creatures

creatures are distressed, it suffers little or nothing, but from the severity of hard seasons. From what has been observed it must appear evident, that a much less quantity of seed sown early, properly scattered, and well covered, will be productive of as large a crop as the usual allowance is; and probably a larger, for the grains being less liable to be disturbed by the birds when striking root, and their roots standing more distinct, they will be better supplied with nourishment, enabled to support their stems, and bring their seed to greater perfection.

S E C T. II.

Oats, Barley, and Rye.

- 1 **A**VENA fativa. *Manured Black Oat.*
 ———— *alba.* Manured White Oat.
- 2 Avena nuda. *Naked Oat, or Pilcorn.*
- 3 Hordeum vulgare. *Common Barley.*
 ———— *cæleste.* Siberian Barley.
- 4 Hordeum distichon. *Long-eared Barley.*
 ———— *nudum.* Naked Barley.
- 5 Hordeum hexastichon. *Big, or Square Barley.*

6 *Hordeum zeocriton.* *Battledore*, or
Sprat Barley.

7 *Secale cereale.* *Common Rye.*
— *vernum.* *Spring Rye.*

1 *AVENA sativa.* *The Oat.* *Lin. Sp.*
pl. 118.

Avena nigra. *Baub. Pin.* 23.

The *Oat* was found growing wild by Lord Anson in the island of Juan Fernandez, at the back of the coast of Chili, in the South Sea; but probably it never was natural to this place, but had been dropped by the Spaniards, who had been here before Anson. In Scotland, and some of the northern counties of England, *Oats* form the chief bread of the inhabitants. They are much used likewise in Germany; but in Norway, *Oat-bread* is a luxury among the common people, for they spare the grain by mixing Fir-bark with it, and grinding both into meal. And they do this not only in times of scarcity, but also when *Oats* are plentiful, that they may be inured to it when the latter fail them. The Fir gives the bread a bitterish taste; and therefore lately they have generally substituted Elm-bark for it, which they find much pleasanter. *Oats* are very nutritive, and easy of digestion, to such as feed constantly upon them.

The White Oat is only a variety of the Black, and though the former are generally preferred

preferred for feeding horses, yet it has been found on some fair trials, that the latter are the best for this purpose, and that such horses as are kept with the Black Oat, appear most healthy, and fullest of spirits.

2 *AVENA nuda. Naked Oat. Lin. Sp. pl. 118.*

This is sometimes found in our corn-fields, and is therefore supposed to be natural to England. It so much resembles the Tartarian Oat, in its manner of growth and general appearance, that it may easily be mistaken for it by any one not well skilled in plants. The difference is, this has three flowers in a calyx, whereas the Tartarian has only two; and the seed of the *nuda* lies bare in the husk in the manner of Rye; but that of the Tartarian is enwrapped in the glume. In former ages this was the chief *Oat* cultivated here, for the seeds being naked was a great inducement to its propagation, before the method of husking the Common Oat became general, as when they were boiled, they turned for the most part into flour.

3 *HORDEUM vulgare. Common Barley. Lin. Sp. pl. 125.*

Hordeum polystichon vernal. Baub. Pin. 22.

This is the *Barley* most generally cultivated. It has three or four rows of flowers,

two of which are erect, and stand in a regular order. They are all hermaphrodite, and bearded. The skin which covers the seed is very thin, and consequently it is a good sort for the maltster. *Barley* is less nourishing than *Wheat*, apt to purge the body, and therefore is not made into bread here, but when the latter becomes too dear for the pockets of the common people. In the Greek islands, *Barley-bread* is much in use; this and dried *Figs* being the principal food of the Monks, the same as *Wheaten bread* and *cheese* are here. In Scotland too the poor people eat frequently of *Barley-bread*. In many parts of India this grain is much cultivated for their cattle, the inhabitants making the meal into dough, which they form into balls, and give them to their *Oxen* and *Camels*. Its native place of growth is not known.

4 HORDEUM distichon. *Long-eared Barley*. *Lin. Sp. pl.* 125.

This is the *Barley* generally cultivated in Norfolk and Suffolk. The ears are very long, and the grains are regularly ranged in a row on each side the receptacle. They are angular, and have a very thin skin, which last circumstance renders this sort also very proper for malting. The French and Pearl *Barley* of the shops are said to be prepared from this species, but as there is little difference

ference between the seeds of this and the former, I imagine they are both promiscuously used for this purpose. The Pearl-barley is prepared in Holland and Germany, by first shelling the grain, and then grinding it into round granules, which gives them a pearly whiteness. This boiled is very soft and lubricating, and is either drank alone to slake thirst, and to obtund acrimonious humours, or it is ordered in emulsions. In Scotland they prepare a deal of both sorts, and they are there boiled in broths to thicken them.

5 HORDEUM hexastichon. *Square Barley.*
Lin. Sp. pl. 125.

This goes by the several names of *Winter Barley*, *Square Barley*, *Bear*, *Big*, and *Clog Barley*. The flowers are all bearded, and ranged in six rows so equally, as to form a perfect six-sided figure. In many parts of Scotland they seldom cultivate any sort but this, it being more hardy than the rest, and the ears there come to a very large size, but the skin being rather thickish, the grain is not so good for malting as either of the former. In Switzerland, and also in some of the Provinces of Germany, they make bread of this, Spelt Wheat, and Oats, all mixed together. In Egypt, where they sow no Oats, they cultivate this as food for their horses.

6 HORDEUM zeocriton. *Sprat Barley.*
Lin. Sp. pl. 125.

Zeocriton five Oriza germanica. *Baub.*
Pin. 22.

This has two regular rows of seed, one on each side the midrib, the same as the *distichon*, but the ear is shorter and broader, the awns are very long, the grains are closer crowded together, and when ripe they diverge so as to cause the awns to spread very wide, and give the idea of a Battledore; whence the name of *Battledore Barley*. The grain is angular like the common Barley, but it is rather shorter, and has a thicker skin, so is not so eligible for malting. It generally yields plentifully to the grower, but the straw is so coarse, that cattle will seldom eat it, for which reason the farmers are not fond of cultivating this sort. The native country of any of these three last species is not known.

7 SECALE cereale. *Common Rye.* *Lin.*
Sp. pl. 124.

Secale hybernum vel majus. *Baub. Pin.*

23.

This is a native of the island of Candia, but has been cultivated in England for many ages. About a century past, *Rye* made the principal bread of the common inhabitants here, but it was black, clammy, very detergent, and consequently less nourishing

rishing than Wheat. It is still used in Wales, in conjunction with the latter, and in some parts of Sweden and Norway, the poor people feed on little else, Wheat-bread being mostly preserved for feasts and weddings.

S E C T. III.

Miscellaneous Grain and Seeds.

- 1 COIX lacryma Jobi. *Job's Tears.*
- 2 Cynofurus coracanus. *Indian Cock's-foot Grass.*
- 3 Festuca fluitans. *Flote Fescue Grass.*
- 4 Holcus sorghum. *Guinea Corn, or Indian Millet.*
- 5 Holcus saccharatus. *Indian Reed Millet.*
- 6 Nymphæa nelumbo. *Egyptian Bean.*
- 7 Oryza sativa. *Rice.*
- 8 Panicum miliaceum. *Common Millet.*
- 9 Panicum Italicum. *Indian Millet.*
- 10 Phalaris canariensis. *Canary Grass.*
- 11 Polygonum fagopyrum. *Buck Wheat.*
- 12 Quercus esculus. *Cut-leaved Italian Oak.*
- 13 Quercus phellos. *Carolinian Willow-leaved Oak.*
- 14 Sefamum orientale. *Eastern Fox-glove.*
- 15 Sefamum Indicum. *Indian Fox-glove.*
- 16 Sinapis nigra. *Black Mustard.*
- 17 Sinapis

- 17 *Sinapis arvensis*. *Charlock*.
 18 *Zea mays*. *Turkey, or Indian Wheat*.
 19 *Zizania aquatica*. *Water Zizania*.

1 *Coix lacryma Jobi*. *Job's Tears*. *Lin. Sp. pl.* 1378.

Lithospermum arundinaceum. *Baub. Pin.* 258.

This is a native of both the Indies. It is a perennial, and sends up two or three crooked stalks, about two feet high, having a long grassy leaf at every joint, at the base of which come out the spikes of flowers, on short footstalks. The spikes are composed of all male flowers, and just below them are two or three females. The male has a bivalve, husky calyx, and a bivalve glume, containing three slender stamina, tipped with oblong, four-cornered summits. The female flower is also composed of a bivalve calyx and glume, and contains an oval germen, which becomes a hard, smooth, roundish seed, nearly like that of Gromwel.

This plant is cultivated in Spain and Portugal, for the use of the poor inhabitants in the time of scarcity, the seeds being then ground, and made into a coarse sort of bread. As they are hard and of different colours, they are often perforated by the negroes, strung upon silk, and then worn for necklaces.

2 CYNOSURUS coracanus. *Indian Cock's-foot Grass. Lin. Sp. pl. 106.*

Gramen Dactylon Ægyptiacum. *Baub. Pin. 7.*

This is an annual, and a native of India. It hath woolly grassy leaves, among which rise the stems, not more than three or four inches high. These are flattish, erect, and terminated by four (sometimes six) linear spikes, that spread in the form of a cross. The flowers are all hermaphrodite, several standing together in a bivalve, husky calyx, and each has a bivalve glume, containing three slender stamina, and two hairy reflexed styles. The germen is small, and top-shaped.

The seeds are near as large as small Millet, and are used by the inhabitants for the same purposes that Millet is.

3 FESTUCA fluitans. *Flote Fescue Grass. Lin. Sp. pl. 111.*

Gramen aquaticum fluitans, multiplici spica. *Baub. Pin. 2.*

This grows very common by ditches, and almost all moist places in England. It hath a creeping root, which sends forth several curved stalks, a little flatted towards the base; these are terminated by long panicles, which are very much branched when the plant grows in the water, or on a very moist place; but in drier situations the panicles
are

are scarcely branched at all. They are of a silvery green colour, and the spiculæ are round, linear, and beardless. The flowers are hermaphrodite, and several of them are common to a bivalve, husky calyx. Each is composed of a bivalve glume, longer than the calyx, and contains three slender stamina, tipped with oblong summits, together with two short, reflexed styles, crowned with simple stigmata. The seed is slender, oblong, and hath a longitudinal furrow.

These seeds are not regarded here as esculent grain, but in Poland they are yearly collected, and sent into Germany and Sweden, where they are sold by the name of Manna Seeds, for the use of the table of people of the first rank, and are much esteemed for their agreeable and nourishing quality. Linnæus affirms, that the bran of this grain will kill Bots in horses, if they be kept from drinking some time before it be given them; and that the grain itself will fatten Geese sooner than any yet known; all which clearly point out the utility of Botany to a farmer; for from this common plant only, if he should be able to distinguish it, he may draw a medicine for his diseased horses, and a profitable and nourishing food for his geese. The poorer sort of people too might collect the seeds for sale as they do in Poland, for if they are so pleasant and agreeable at the tables of the
German

German and Swedish gentlemen, why should they not be so at those of the English? The plant grows prodigiously plentiful in most marshes, and in those near the sea; and in the middle of a hot day, I have seen the spikes quite covered with a brown substance, as sweet as sugar.

4 *Holcus forghum*. *Guinea Corn*. *Lin. Sp. pl.* 1484.

Milium arundinaceum, *subrotundo femine*, *Sorgho nominatum*. *Bauh. Pin.* 26.

This is an annual plant, and a native of India. It sends up thick, strong stalks, like those of Turkey Wheat, to seven or eight feet high, and set at their joints with large grassy leaves, often more than two feet long, and three inches broad in the middle, embracing the stalks with their base. The midrib of these is very depressed on the upper surface, and prominent on the back. The stalks are terminated with large, close, oval panicles of chaffy flowers, some of which are male, and others hermaphrodite on the same panicle. The male flowers have no glumes, but each consists of an hairy, husky, bivalve calyx, containing three hairy stamina, tipped with oblong summits. The hermaphrodite flowers have a like, but larger calyx, together with a bivalve glume, containing three hairy stamina, and two small styles, crowned with pencil-shaped
2 stigmata.

stigmata. The germen is roundish, and becomes an oval seed, wrapped in the glume, having a small arista, the bottom of which is brown, and the top white.

5 *HOLCUS saccharatus.* *Indian Reed Millet.* *Lin. Sp. pl.* 1484.

Frumentum indicum, quod Milium indicum vocant. *Baub. Theatr.* 488.

This too is a native of India, grows to the size of the former, and makes the like general appearance; but, the panicle of this spreads open, the branches standing nearly horizontally upon the receptacle. The calyces of the flowers too are smooth, but the seeds are much of the same size as the former; these vary in both with respect to colour, they being white, yellow, or reddish. The stalks of this species are almost as copiously stored with a saccharine juice as the Sugar Cane.

Both these plants are cultivated in Africa by the name of Guinea Corn, and they have been confounded as only one sort by most travellers. The grain is there made into bread, and otherwise used, and is deemed wholesome food. From Africa the Negroes carried them to the West Indies, where they are both sown for their use, and each slave is generally allowed from a pint to a quart per day.

6 *Nymphaea nelumbo*. *Egyptian Bean*.
Lin. Sp. pl. 730.

Nymphaea foliis orbiculatis peltatis subtus radiatis. *Brown's Jam.* 343. *Faba Ægyptia*.

This is a perennial, growing naturally in stagnated waters, in both the Indies. It sends forth large, orbicular leaves, which float upon the surface of the water, and are about half a yard diameter, having their footstalks, which are long and prickly, inserted into their centre. From the middle of each leaf issue a great number of large rays or ribs, all diverging towards the margin, breaking into many ramifications, and making a beautiful appearance. Among the leaves come the flowers, supported on long peduncles; they are large, and consist of many deep flesh-coloured petals, disposed in rows, as they are in the White Water Lily. In the middle are numerous incurved stamina, surrounding an oval germen, which becomes a top-shaped seed-vessel, having many cells, that form as many holes upon its surface, in manner of a sand-dish, each containing a single seed.

When these seeds are young and green, they are boiled and eaten by the inhabitants of India, they being then agreeable; but when full ripe, they are hard and bitterish. I knew a person who eat many of them raw, as they were sent from the West Indies, and they made him very ill for some time after.

The flowers of this plant are sacred in some heathen countries, and with them they adorn the altars of their temples. Often too their gods are painted sitting upon them.

The ancient writers on Botany mostly confounded this plant with the *Arum colocasia*, which caused much confusion in their accounts of both plants, and was the means of inducing many to believe that the *Faba Ægyptia* existed only in the brains of such as wrote about it. This uncertainty seems to have arisen from some affinity in the leaves of the two plants, they both being peltated, and though not exactly of a shape, yet in more remote times, when this science was very imperfect, such differences were not strictly attended to, and therefore it is probable, that those who did not see the plants in flower, mistook the one for the other; which they might easily do, as they both grow in the same kind of soil and situations.

7. *ORYZA fativa*. *Rice*. *Lin. Sp. pl.* 475.

Rice is a native of India, and is cultivated in almost every part of Asia. It is an annual, and rises to about a yard high, with broader and thicker leaves at the joints of the stalks, than those of Wheat. Each stalk is terminated by a spreading panicle, plentifully furnished with small flowers, standing singly in a bivalve chaffy calyx,
and

and having a bivalve, boat-shaped glume, ending in a spiral beard. The stamina are six, of the length of the glume, and are terminated by summits, which split at their base. There are two hairy, reflexed styles, crowned with feathered stigmata, and placed on a top-shaped germen, which becomes an oblong compressed seed.

This grain is the principal food of the inhabitants in all parts of the East, where it is boiled and eaten either alone or with their meat. Large quantities of it are annually sent into Europe; and it meets with a general esteem for family purposes. The people of Java have a method of making puddings of *Rice*, which seems to be unknown here, but is not difficult to put in practice, if it should merit attention. They take a conical earthen pot, which is open at the large end, and perforated all over; this they fill about half full with *Rice*, and putting it into a larger earthen pot of the same shape, filled with boiling water, the *Rice* in the first pot soon swells and stops the perforations, so as to keep out the water; by this method the *Rice* is brought to a firm consistence, and forms a pudding, which is generally eaten with butter, oil, sugar, vinegar, and spices. The Indians eat stewed *Rice* with good success against the bloody-flux, and in most inflammatory disorders they cure themselves with only a decoction of it. The spirituous

liquor, called *Arrack*, is made from this grain.

Rice grows naturally in moist places, and will not come to perfection when cultivated, unless the ground be sometimes overflowed, or plentifully watered. The grain is of a grey colour when first reaped, but the growers have a method of whitening it, before it is sent to market. The manner of performing this and beating it out in Egypt, is thus related by Hasselquist: They have hollow iron, cylindrical pestles, about an inch diameter, lifted by a wheel worked with oxen. A person sits between the pestles, and as they rise, pushes forward the Rice, whilst another winnows, and supplies fresh parcels. Thus they continue working, until it is entirely free from chaff. Having in this manner cleaned it, they add one-thirtieth part of salt, and rub them both together, by which the grain acquires a whiteness; then it is passed through a sieve, to separate the salt again from it.

In the Island of Ceylon they have a much more expeditious method of getting out the Rice, for in the field where it is reaped, they dig a round hole with a level bottom, about a foot deep, and eight yards diameter, and fill it with bundles of the corn. Having laid it properly, the women drive about half a dozen oxen continually round the pit, and thus they will tread out forty or fifty bushels a-day.

a-day. This is a very ancient method of treading out corn, and is still practised in Africa upon other sorts of grain.

8 *PANICUM miliaceum*. *Common Millet*.
Lin. Sp. pl. 86.

Milium femine luteo & albo. *Baub*,
Pin. 26.

This is a native of India. It sends up a channelled, reed-like stalk, to the height of about four feet, composed of four or five joints, and furnished with a large grassy leaf at each, the base of which is covered with soft hairs, and embraces the stalk up to the next joint. The stalk is terminated by a large loose panicle of green flowers, each consisting of a trivalve calyx, one part of which is very small, and a bivalve glume, containing three hairy stamina, and two hairy styles, crowned with pencil-shaped stigmata. The germen is roundish, and becomes a seed of the same form, covered with the glume.

This plant is cultivated in most eastern countries, and also in several of the warm parts of Europe. The seeds vary in their colour, and are white, yellow, or blackish. They are pretty well known here, being frequently made use of for puddings.

9 *PANICUM Italicum*. *Indian Millet*.
Lin. Sp. pl. 83.

Panicum Italicum five paniculâ majore,
Baub. Pin. 27.

This is a native of both the Indies, and grows to much the same height as the former; but it has a compound spike, not a panicle, and the smaller spikes grow in clusters, mixed with bristles, upon hairy peduncles, and a hairy midrib. The bases of the leaves are covered with hairs. It is much cultivated in Italy, and some parts of Germany, where they make puddings of the seeds, and also boil them in most of their soups and sauces.

10 *PHALARIS canariensis. Canary Grass,*
Lin. Sp. pl. 79.

Phalaris major, semine albo. Baub. Pin,
28.

This is a grass-leaved plant, and grows naturally in the Canary Islands. It rises to about two feet high, having crooked, channelled stalks, with a leaf at each joint, the sheath of which embraces the stalk to the next joint. The stalk is terminated with an egg-shaped, compound spike, thickly set with flowers, each having a bivalve, keel-shaped calyx, of a yellowish colour, striped with green, and a bivalve glume, containing three stamina and two styles.

The seed is well known, being the usual food of Canary-birds. In its native country
the

the inhabitants grind it into meal, and make a coarse sort of bread with it.

11 *POLYGONUM fagopyrum.* *Buck Wheat.* *Lin. Sp. pl. 522.*

Erysimum cereale, folio *hederaceo.*
Baub. Pin. 27.

The *Buck Wheat* is so often found wild in our tilled lands, that it is supposed to be natural here, but it is probable it was at first introduced from Asia. It is frequently cultivated by the farmers, which makes it generally known, and therefore it will be needless to describe it. In several parts of Europe this constitutes the principal food of the poor inhabitants; and in Russia in particular, it was formerly not only eaten by the lower class, but even the nobility were contented with it. Boiled and then buttered it was such a favourite dish of the Czar Peter the Great, that it is said he seldom supped on any thing else. This method of eating *Buck Wheat* is still in great esteem both in Germany and Switzerland. They make cakes and puddings of it too, and boil it in their broths and soups.

12 *QUERCUS esculus.* *Italian Oak.* *Lin. Sp. pl. 1414.*

Quercus parva five *Fagus Græcorum et Esculus.* *Baub. Pin. 420.*

This sort of *Oak* grows naturally in the
Z 4 south

south of France and Italy.. It hath smooth sinuated leaves, so deeply cut, that they appear like lobes. Their footstalks are short, and some of the sinuses end in an acute point, others in an obtuse one. The young branches are covered with a purplish bark, and the acorns sit close to them. The latter are long, slender, with very rough cups.

In times of scarcity the poor people in France collect these acorns, and grind them into meal, of which they make bread. They have a sweetish taste, but afford little nourishment.

13 *QUERCUS phellos.* *Willow-leaved Oak.* *Lin. Sp. pl.* 1412.

This is an ever-green, and a native of Virginia. It is a very large tree, often rising upwards of forty feet high. The wood is hard, tough, and coarse. The branches are covered with a greyish bark, and are garnished with oblong, spear-shaped leaves, somewhat like those of Sallow, but of a thicker consistence. The acorns are oblong, and sit in very short cups; they are sweeter than a Chesnut, and are much sought after by the Indians, in order to lay up to regale with in Winter. They likewise draw an oil from them, which they use instead of butter; and it is little inferior to the oil of Almonds. In America the tree goes by the name of *Live Oak*.

14 *SESAMUM*

14 *SESAMUM orientale*. *Eastern Foxglove*. *Lin. Sp. pl.* 883.

Sesamum veterum. *Baub. Pin.* 27.

This is an annual, and grows naturally in the island of Ceylon, and on the coast of Malabar. It sends up a round, hairy stalk, about two feet high, divided into a few branches, furnished with oblong-oval leaves, standing opposite on footstalks; they are entire on their margins, veined, and thinly covered with a few soft hairs. The flowers come out singly at the bosoms of the leaves, upon short peduncles; they are white, and each has a permanent calyx, cut at the brim into five equal parts, which spread open, and contain a petal shaped like that of the Foxglove. In the centre of the tube are four stamina, two shorter than the other, and all shorter than the petal; these surround an oval hairy germen, supporting a style longer than the stamina, and crowned by a spear-shaped stigma, divided into two parts. When the flower falls, the germen becomes an oblong capsule, having four cells, containing many small oval, compressed seeds.

This plant is not only cultivated in Asia, but also in Africa, and from the latter the negroes have carried it to South Carolina, where they raise large quantities of it, being very fond of the seeds, and make soups and puddings of them, as with Rice and Millet. They parch them too over the fire,

fire, and with other ingredients, stew them into a hearty food. The seed in Carolina is called *Oily Grain*, it yielding oil very copiously. This when first drawn has a warm pungent taste, and is otherwise not palatable, but after being kept a year or two, the disagreeableness goes off, and it becomes mild and pleasant, is then used in their sallads, and for all the purposes of *Olive Oil*.

15 *SESAMUM Indicum*. *Indian Foxglove*.
Lin. Sp. pl. 884.

This too is an annual, and a native of some parts of India. The stalk rises higher than in the former species, and the lower leaves are cut into three divisions. The flower resembles the other, and the grain is eaten in India in the same manner.

16 *SINAPIS nigra*. *Black Mustard*. *Lin. Sp. pl.* 933.

Sinapi rapi folio. *Baub. Pin.* 99.

This is an annual, and grows wild in hedges, and on the borders of our fields. It sends up a branched stalk, three or four feet high, furnished with variously jagged leaves at the divisions of the branches; those at the lower part resemble Turnep leaves, tho' smaller, but towards the top they are less jagged, and nearly oval. The flowers terminate the branches in loose spikes; they are yellow, and each is composed of a calyx

of four narrow leaves, which spread open in form of a cross, and fall off when the flower fades; and of four roundish petals, standing in the same manner, having four oval glands, one on each side the stamina and style. In the centre are six awl-shaped stamina, two shorter than the rest, surrounding a taper germen, which becomes a smooth four-square pod, about an inch long, ending in a sharp point.

This plant is cultivated for the seed, of which that excellent and wholesome sauce, called Mustard, is made.

17 *SINAPIS arvensis*, *Charlock*. *Lin. Sp. pl.* 933,

Rapistrum flore luteo. *Baub. Pin.* 95.

This is the *Common Charlock*, and it is generally known by being a troublesome weed among corn. It is said the *Durham* flour of Mustard is made from the seeds of this; but the truth of it I know not. There is another plant called *Charlock*, or *Wallock*, by the farmers, and grows larger than the former. This is the *Rapbanus raphanistrum*, the calyx of which is shut, or stands upright, the flower is whitish, and the pod is long, round, smooth, and has but one cell. This is a more pernicious weed among corn than the first *Charlock*.

18 ZEA mays. *Indian Wheat.* Lin.
Sp. pl. 1378.

Frumentum Indicum Mays dictum.
Baub. Pin. 25.

The *Turkey Wheat* is a native of America, where it is much cultivated, as it is also in some parts of Europe, especially in Italy and Germany. There are many varieties, which differ in the colour of the Grain, and are frequently raised in our gardens by way of curiosity, whereby the plant is well known. It is the chief bread corn in some of the southern parts of America, but since the introduction of Rice into Carolina, it is but little used in the northern colonies. It makes a main part too of the food of the poor people in Italy and Germany. This is the sort of *Wheat* mentioned in the Book of Ruth, where it is said that *Boaz* treated *Ruth* with parched ears of corn dipped in vinegar. This method of eating the roasted ears of *Turkey Wheat* is still practised in the East, they gathering the ears when about half ripe, and having scorched them to their minds, eat them with as much satisfaction as we do the best flour-bread. In several parts of South America they parch the ripe corn, never making it into bread, but grinding it between two stones, mix it with water in a Calabash, and so eat it.

The Indians make a sort of drink from this grain, which they call *Cici*. This liquor

quor is very windy and intoxicating, and has nearly the taste of sour Small Beer; but they do not use it in common, being too lazy to make it often, and therefore it is chiefly kept for the celebration of feasts and weddings, at which times they mostly get intolerably drunk with it. The manner of making this precious beverage, is to steep a parcel of the corn in a vessel of water, till it grows sour; then the old women, being provided with Calabashes for the purpose, chew some grains of the corn in their mouths, and spitting it into the Calabashes, empty them spittle and all into the sour liquor, having previously drawn off the latter into another vessel. The chewed grain soon raises a fermentation, and when this ceases, the liquor is let off from the dregs, and set by till wanted. In some of the islands in the South Sea, where each individual is his own lawgiver, it is no uncommon thing for a near relation to excuse a murderer, for a good drunken-bout of *Cici*.

19 *ZIZANIA aquatica.* *Water Zizania.*
Lin. Sp. pl. 1408.

Arundo alta gracilis, foliis e viridi cæruleis, locustis minoribus. *Sloane's Jam.* 33.
Hist. I. p. 110.

This is a reed-like plant, growing in the swampy parts of Jamaica and Virginia. The leaves are of a green-purplish colour, and
the

the stalks terminate in spreading panicles of male and female flowers in distinct cups. The male hath no calyx, but consists of a bivalve, equal glume, containing six small stamina, tipped with oblong summits. The female also hath no calyx, but is composed of a bivalve glume, wrapped round the germen, and having a long arista. The germen supports two small styles, and becomes a small oblong seed.

The Indians are exceedingly fond of this grain, and count it more delicious than Rice. If this valuable plant were brought into England, as is justly observed by a late writer, it is probable it would succeed well upon some of our low meadows, and amply reward the pains of such as might cultivate it.

C H A P. X.

ESCULENT NUTS*.

- 1 **A** MYGDALUS communis. *Sweet and Bitter Almond.*
- 2 Anacardium occidentale. *Cashew Nut.*
- 3 Avicennia tomentosa. *Eastern Anacardium, or Malacca Bean.*
- 4 Corylus avellana. *Hazel Nut.*
 ——— racemosa. *Cluster Nut.*
 ——— maxima. *Large Cob Nut.*
 ——— rubens. *Red Filbert.*
 ——— alba. *White Filbert.*
- 5 Cocos nucifera. *Cocoa Nut.*
- 6 Fagus castanea. *Common Chestnut.*
- 7 Fagus pumila. *American Chestnut.*
- 8 Juglans regia. *Common Walnut.*
- 9 Juglans nigra. *Black Virginian Walnut.*
- 10 Jatropha curcas. *Indian Physic Nut.*
- 11 Jatropha multifida. *French Physic Nut.*
- 12 Pinus pinea. *Stone, or manured Pine.*
- 13 Pistacia vera. *Pistachia Nut.*
- 14 Pistacia narbonensis. *Trifoliolate-leaved Turpentine-tree.*
- 15 Theobroma cacao. *Chocolate Nut.*
- 16 Trapa natans. *Jesuit's Nut.*

* A Nut is defined to be a hard, woody seed-vessel, inclosing a meat or kernel.

1. *AMYGDALUS communis.* *The Almond-tree.* *Lin. Sp. pl.* 677.

Amygdalus sylvestris. *Baub. Pin.* 441.

This grows wild in Africa, and rises to a very large tree, spreading its arms to a great width. These put forth numerous slender branches, furnished with leaves nearly like those of the Peach. The flowers come out by pairs, and have little or no peduncles; they resemble the Peach flowers, but are of a lighter colour, and are succeeded by dry, skinny fruit, containing the nuts called *Almonds*.

- The *Almonds* are of two kinds, one sweet, the other bitter, yet both are promiscuously produced from kernels of the same tree; nor does there appear any difference in the nuts to the eye. They both yield by expression a copious quantity of oil, which has neither smell or any particular taste. This oil is of a soft relaxing nature, and is given internally against coughs, heat of urine, and inflammations. The kernels of the Sweet Almond are eaten in abundance, and about half a score of them peeled are said to give relief in the heart-burn.

2 *ANACARDIUM occidentale.* *Cashew Nut.* *Lin. Sp. pl.* 548.

This tree grows naturally in both the Indies, and is the only plant of the genus. It is rather low, seldom exceeding twenty feet,

feet, but breaks into wide crooked branches, which are furnished with oval leaves, about the size of those of the Pear-tree. The flowers are small, white, and come out at the sides of the branches; they have a pentaphyllous * calyx, composed of oval, sharp-pointed leaves, and a bell-shaped petal, cut at the brim into five segments. In the centre are ten stamina, and one inflexed, awl-shaped style, crowned by an oblique stigma. The germen is roundish, and becomes a large, yellow, oval, fleshy fruit, about the size of a Lemon, supporting at its apex, which is the thickest end, a smooth, ash-coloured nut, shaped like a hare's kidney, and about an inch and a half long, and one broad.

The fleshy fruit is stringy, and full of a rough, acid juice, which is used in America to acidulate punch. The shell of the Nut is very hard, and the kernel, which is sweet and pleasant, is covered with a thin film; between this and the shell is lodged a thick, blackish, inflammable liquor, of such a caustic nature in the fresh Nuts, that if the lips chance to touch it, blisters will immediately follow. The kernels are eaten raw, roasted, or pickled.

The caustic liquor, just mentioned, is esteemed an excellent cosmetic with the West India young Ladies, but they must

* Having five leaves.

certainly suffer a great deal of pain in its application; and as fond as our English females are of a beautiful face, it is highly probable they would never submit to be flayed alive to obtain one. When any of the former think themselves too much tanned by the heat of the sun, they take the *Cashew* kernels, and gently scrape off the thin skins with which they are surrounded; with these they rub their faces all over, which cause them immediately to swell and grow black, but in a few days the skin of the whole face flakes off in pieces, and in about three weeks a new one will be formed, which will be as smooth and fair as that of a young child. I have been told by persons who have stood under these trees for shelter in a storm, that by chance this liquor has dropped on their hands from some decaying Nuts, and it has eaten the skin nearly as quick as *aqua fortis*.

The yellow fruit is famous for curing the Brazilian negroes of disorders in the stomach, to which they are very subject; but they seldom use it voluntarily for this purpose, as their humane masters, when they find them much indisposed, knowing what is good for their health, drive them to woods abounding with *Cashew Nuts*, and leave them there either to perish by famine, or cure themselves. In a short time hunger forces them to eat plentifully of the fruit, there being
nothing

nothing else to be had, and in two or three weeks they are brought back again perfectly sound, and fit for their customary labour. The milky juice of this tree will stain linen of a good black, which cannot be washed out again.

3 AVICENNIA tomentosa: *Eastern Anacardium. Lin. Syst. Natu. 426.*

Bontia foliis subtus tomentosis. Jacq. Amer. 25. Anacardium. Baub. Pin. 511.

This tree is a native of both the Indies. The leaves are oblong, entire, woolly underneath, and stand opposite, on very short thick footstalks. The flowers are produced in long bunches, and each consists of a permanent calyx, cut into five roundish lobes, and containing a white bell-shaped petal, having a short tube, with its brim cut into two lips, each of which is mostly divided into three equal oval parts. It hath four awl-shaped erect stamina, tipped with roundish, twin summits, and one erect style, crowned with an acute, bifid stigma. The capsule is tough, compressed, somewhat the shape of a rhombus, and contains one large seed of the same figure, having four fleshy gills.

These seeds are said to be the Malacca Beans formerly kept in the shops, (but this is doubtful) the kernels of which were eaten as Almonds.

The plant is the *Bontia germinans* of the Species Plantarum.

4 *CORYLUS avellana*. *The Hazel*. *Lin. Sp. pl.* 1417.

Corylus sylvestris. *Baub. Pin.* 418.

The *Hazel* is so common in our woods and hedges, that it must be generally known. The different kinds of *Filberts*, so commonly planted in gardens, are only varieties of this. Whether the Spanish Nut be another variety is uncertain, but Miller thinks the latter is the *Corylus colurna*.

It will be needless to mention the manner of eating the Nuts here, but in China they put the meats into their Tea, and count they give it a more grateful flavour.

5 *Cocos nucifera*. *Cocoa Nut*. *Lin. Sp. pl.* 1658.

Palma indica coccifera angulosa. *Baub. Pin.* 502.

This is a species of Palm, growing naturally in the East Indies, but it is much cultivated in South America, and the West India islands. It rises to fifty or sixty feet high, the body or trunk generally leaning on one side; but is regularly shaped, being equally thick at both ends, and smallest in the middle. The bark is smooth, and of a pale brown colour. At the top come out from twenty to thirty branches, or rather leaves, some of them fifteen feet long; these
are

are winged, straight, and tapering. The lobes are green, sword-shaped, and about three feet long towards the base of the midrib, but diminish towards the extremity. The branches or leaves are bound at their base by stringy threads, about the size of small packthread, which are interwoven like a web. The flowers are of a pale yellow colour, are produced in long bunches at the insertions of the leaves, and are male and female issuing from the same sheath. The male is composed of a small, three-leaved calyx, containing three oval, sharp-pointed petals, and six stamina, tipped with arrow-shaped summits. The female also has a three-leaved calyx, and three petals, surrounding one style, crowned by a three-lobed stigma. The germen is oval, and swells to a large berry, inclosing an oval nut, with a hard shell, having three holes at the top, and is covered with a kind of tow, which the Indians twist off, and make into cordage. With this tow they likewise make an excellent caulking for their vessels.

Within the Nut is found a kernel, as pleasant as an Almond, and also a large quantity of liquor resembling milk, which the Indians greedily drink before the fruit is ripe, it being then pleasant, but when the Nut is matured, the liquor becomes sour. Some full-grown Nuts will contain a pint or more of this milk, the frequent drinking of

which seems to have no bad effects upon the Indians, yet Europeans should be cautious of making too free with it at first, for when Lionel Wafer was at a small island in the South Sea, where this tree grew in plenty, some of his men were so delighted with it, that at parting they were resolved to drink their fill, which they did; but their appetites had like to have cost them their lives, for though they were not drunk, yet they were so chilled and benumbed, that they could not stand, and were obliged to be carried aboard by those who had more prudence than themselves, and it was many days before they recovered.

The shells of these Nuts being hard, and capable of receiving a polish, they are often cut transversely, when being mounted on stands, and having their edges silvered or gilt, or otherwise ornamented, thus serve the purpose of drinking cups. The leaves of the tree are used for thatching, for brooms, baskets, and other utensils; and of the reticular web, growing at their base, the Indian women make cauls and aprons.

6 *FAGUS castanea.* *Common Chestnut.*
Lin. Sp. pl. 1416.

Castanea sylvestris. *Baub Pin.* 419.

The *Common Chestnut* is a native of the southern parts of Europe, but is much cultivated in England, where it produces as good

good fruit as it does in Spain and Italy, though they are not altogether so large. It is now so common in gentlemen's plantations, that it is generally known. It will be needless to speak about the nature of the Nuts, but it may be observed, that the tree affords excellent timber, the wood being equal to the best Oak for many purposes.

7 FAGUS pumila. *American Chestnut.*
Lin. Sp. pl. 1416.

Fagus foliis ovato-lanceolatis serratis.
Roy. lugdb. 79.

This is a native of America. It differs from the former in the tree being much smaller; in the leaves being woolly underneath, and in the catkins of flowers being slenderer and knotted. The Nuts are a little bigger than Hazel-nuts, but far exceed the Common Chestnut in sweetness. The woods of South Carolina abound with these trees.

8 JUGLANS regia. *Common Walnut.* *Lin. Sp. pl.* 1415.

Nux juglans sive regia vulgaris. *Baub. Pin.* 417.

The *Common Walnut* is known to all by being so universally cultivated, but its native place of growth has not yet been ascertained. There are many varieties of it, which are only feminal variations. The

meats are supposed to be much of the nature of Almonds, yet they are certainly less emollient, as they are apt to excite coughing. The Chinese candy these Nuts into a Sweetmeat, and the raw kernels they put into their tea, as has been mentioned of the Hazel-nuts.

9 *JUGLANS nigra. Black Virginian Walnut. Lin. Sp. pl. 1415.*

This grows naturally in Virginia and Maryland, where it arrives to a large size, having its branches furnished with leaves, composed of five or six pair of spear-shaped lobes; these are serrated, sharp-pointed, and the lower pair the least. When rubbed they emit a strong aromatic smell, as do also the Nuts, which are rough, rounder than the Common Walnut, their shells very hard and thick, the kernels small, but sweeter than our nuts.

10 *JATROPHA curcas. Indian Physic Nut. Lin. Sp. pl. 1429.*

Jatropha affurgens, ficus folio, flore herbaceo. Browne's Jam. 348.

This grows naturally in the West India islands, where it rises with a strong stem to about fourteen feet, divided into several branches, furnished with angular heart-shaped leaves, somewhat resembling those of the Fig. The flowers are male and female

male distinct on the same plant, of an herbaceous colour, and are produced in umbels at the ends of the branches. The females are succeeded by oblong-oval capsules, with three cells, each containing one oblong black seed.

II *JATROPHA multifida*. *French Physic Nut*. *Lin. Sp. pl.* 1429.

Jatropha affurgens, foliis digitatis: laciniiis angustis pinatifidis. *Browne's Jam.* 348.

This is a native of South America, but is cultivated in the West Indies. It is a lower shrub than the former, and the leaves are divided into nine or ten narrow lobes, which are joined at their base, and have many jagged teeth on their edges, standing opposite. The upper surface of the leaves are of a shining green, but the under side greyish. The flowers are male and female distinct on the same plant, and of a bright scarlet colour; they come out in umbels in manner of the former, and make a beautiful appearance, whereby the shrub is as much cultivated for ornament, as for use.

The kernels of the Nuts of both these species are violently emetic and cathartic, as many European sailors have experienced; for only three or four of them, eaten by people ignorant of the Nuts, and the effects of the kernels, have purged them both ways
for

for many hours after. The natives affirm that this purgative quality consists entirely in a film that runs through the centre of the kernel; and Dr. Bancroft says he really believes this to be the case, he having frequently eaten the meats when divested of this membrane, without feeling any of the above effects. The kernels have a grateful flavour.

12. *Pinus pinea*. *Stone Pine*. *Lin. Sp. pl.* 1419.

Pinus officullis duris, foliis longis. *Baub. Hist. I. p.* 248.

This is a large tree, and grows naturally in France, Spain, and Italy. The leaves grow two in a sheath, are a little ciliated, inclining to a sea-green colour, and are rather thinner and shorter than those of the Pineaster. The cones are roundish, very thick, about five inches long, and the scales end in an obtuse point. The seeds are near three quarters of an inch long, thick, inclining to an oval form, round backed, and of a light brown colour.

The kernels of these Nuts or seeds have a pleasant, agreeable taste, and in Italy are frequently served up in deserts. An oil is drawn from them, which is equal in goodness to that obtained from Hazel-nuts. Between the wood and inner bark of this tree, lies a soft white substance, which in

the Spring the Swedes prepare a much-esteemed dish from; and the bark is often ground and mixed with Oat-meal for bread.

13 PISTACIA vera. *Pistachia Nut. Lin. Sp. pl. 1454.*

Pistacia perogrina, fructu racemoso five Terebinthina indica. Baub. Pin. 401.

The *Pistachia* grows in several parts of Asia. It rises to between twenty and thirty feet; the young branches are covered with a light-brown bark. The leaves are pinnated, and composed of about three pair of oval lobes, with an odd one at the end. The lobes emit an odour on being rubbed, and their edges are turned backwards. It hath male and female flowers in distinct plants. The males are produced in loose sparsed catkins. They have no petals, but each consists of a small five-pointed calyx, containing five small stamina, terminated by four-cornered summits. The female flowers come out in clusters from the sides of the branches; these have no petals, but each has a large oval germen, supporting three reflexed styles, and are succeeded by oval Nuts.

The kernels of these Nuts have a sweet, unctuous taste, resembling that of sweet Almonds. They are of a healing balsamic nature, and are deemed serviceable in distempers of the breast.

14 PISTACIA

14 *PISTACIA* *narbonensis*. *Trifoliate-leaved Turpentine-tree*. *Lin. Sp. pl.* 1454.

Terebinthus indica major, fructu rotundo. *Baub. Hist. I. p.* 277.

This grows naturally in Persia, and some parts of Armenia. It is a middling-sized tree, sending out many side branches, furnished with light-green winged leaves, composed of three or five roundish lobes, standing on long footstalks. It is male and female in distinct plants, as the former. The Nuts are small, but their kernels are eaten in manner of the true sort.

15 *THEOBROMA* *cacao*. *Chocolate Nut.* *Lin. Sp. pl.* 1100.

Amygdalis similis guatimalensis. *Baub. Pin.* 442.

The *Chocolate Nut-tree* grows naturally upon most parts of the isthmus of Darien, and several of the Spanish settlements in the West Indies. It rises to a considerable height in its natural state, but when cultivated for a crop, it is topped to keep it low. The leaves are very large, oval, and entire. The flower is composed of five flesh-coloured petals, which are irregularly indented, and surround five erect, awl-shaped stamina, and one like shaped style, crowned with a simple stigma. The germen is nearly oval, and becomes a yellow oblong pod, about the size of a Melon, pointed at both ends,

ends, and having five cells, filled with oval, compressed, fleshy seeds.

These seeds or Nuts are about the size of Olives, are of an oily nutritive nature, and constitute a principal part of what is sold in the shops by the name of *Cbocolate*.

In order to cure the Nuts for sale, the negroes cut the pods lengthways, and take them out, at the same time carefully divesting them of the pulp which sticks about them. This done, they are carried to a house, and laid in large wooden vessels raised above the ground, when they are covered with mats, upon which they place boards with weights upon them, to press the Nuts close. In these vessels they are kept to ferment for four or five days, but they must be well stirred every morning, lest the excessive heat should spoil them, and in the end they change from a white to a brown colour. Afterwards they are taken out of the vessels, spread upon cloths, and exposed in the sun to dry, and when sufficiently weathered, they are packed up for market.

16 *TRAPA natans*. *Jesuit's Nut*. *Lin. Sp. pl.* 175.

Tribulus aquaticus. *Baub. Pin.* 194.

This grows plentifully in the lakes and stagnant waters in Italy and Germany. It hath almost semicircular leaves, which float

on the surface of the water ; among which rise up sappy, round stalks, supporting the flowers. Each flower hath a monophyllous calyx, cut into four acute parts, and surrounds four oval, whitish petals, larger than the calyx. In the centre are four stamina, and one style, crowned with a roundish snipped stigma. The germen is oval, and becomes a naked oblong-oval Nut, having one cell, and armed with four sharp, thickish spines, standing opposite one another in the middle.

These Nuts are collected by the common people, and their kernels having a pleasant flavour, are not only eaten crude, but are often made into bread.

C H A P. XI.

ESCULENT FUNGUSES.

- 1 **A** GARICUS campestris. *Common Mushbroom.*
- 2 Agaricus pratenfis. *The Champignon.*
- 3 Agaricus chantarellus. *Chantarelle Agaric.*
- 4 Agaricus deliciosus. *Orange Agaric.*
- 5 Agaricus cinnamomeus. *Brown Mush-room.*
- 6 Agaricus violaceus. *Violet Mushbroom.*
- 7 Lycoperdon tuber. *The Truffle.*
- 8 Phallus esculentus. *The Morel.*

As the Agarics are numerous, and generally supposed to be poisonous, I shall describe the above few wholesome ones as minutely as possible, in order to prevent any accident from mistaking the species.

1. AGARICUS campestris. *Common Mush-room. Lin. Sp. pl. 1641.*

Fungus campestris albus superne, inferne rubens. Baub. Hist. III. p. 824.

The top or cap of this is first of a dirty cream colour, convex, and if but just expanding,

panding, the under part, or what is called the gills, is of a bright flesh red; this colour lasts but a little time before it turns darker, and when the plant is old, or has been some time expanded, the gills become of a dark brown, the cap almost flat, of a dirty colour, and often a little scaly. It differs much in size, in different plants, it being from an inch to seven inches broad. The general use of it is well known. It is found in woods, old pastures, and by road sides, and is in the greatest perfection in September.

There is a variety of this with a yellowish white cap and white gills; this is very firm, but seldom expands so freely as the true sort, and when broiled will exude a yellowish juice. It is probable this sort is not pernicious, though it is always rejected by such as can distinguish it.

2 AGARICUS pratensis. *Champignon.*
Hudson's Flo. Angl. 616.

The *Champignon* is very common upon heaths and dry pastures. A number of them generally come up in a place, ranged in curved lines or circles. The cap is small, almost flat, from one to two or three inches diameter, of a pale buff colour, often crumpled at the edges, and when dry, tough like leather, or a thin piece of fine cork. The gills are of the colour of the cap, are thinly placed, with a short one, and sometimes two,
coming

coming from the edge of the cap between each. The stalk or pillar is also of the colour of the cap; it is long, slender, and all the way of a thickness.

This plant has but little smell, is rather dry, and yet when broiled or stewed, it communicates a good flavour. In perfection with the former.

3 *AGARICUS chantarellus.* *Chantarelle*
Agaric. *Lin. Sp. pl.* 1639.

Fungus minimus flavescens infundibuliformis. *Baub. Pin.* 373.

This is rather a smaller Fungus than the former. The cap is yellow, of different hues in different plants, some being of a pale yellow, and others of an orange colour. It is generally sunk in the middle, somewhat resembling a tunnel, and its edges are often twisted and contorted so as to form sinuses or angles. The gills are of a deeper colour than the outside, are very fine, even, numerous, and beautifully branched. The ramifications begin at the stalk, and are variously extended towards the edge of the cap. The pillar is of the same colour as the cap, is seldom inserted in the centre, but rather sideways; it is short, thickish at the root, and the gills mostly run down the top, which make it appear smallest in the middle.

This plant broiled with salt and pepper

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has

370 F U N G U S E S.

has much the flavour of a roasted cockle; and is esteemed a delicacy by the French, as is the former. It is found in woods and high pastures, and is in perfection about the end of September.

4 AGARICUS deliciosus. *Orange Agaric.*
Lin. Sp. pl. 1641.

Amanita fulvus, lacte croceo. Hall.
Hist. 2419.

The general size of the cap of the *Deliciosus* is from two to four inches broad. Its form is circular, with the edges bent inwards; convex on the upper surface, except in the centre, where it is a little depressed, so as nearly to resemble the apex of a smooth Apple. The colour is a sordid yellow, streaked with ash and yellowish brown, from the centre to the edge, and when it is broken, it emits a gold-colour juice. The gills are of a deep yellow, and a few of them come out by pairs at the stalk, but divide immediately, and run straight to the edge of the cap. The stalk or pillar is thinnest near the middle, thickest at the root, and when cut transversely, it is quite white in the centre, with a fine yellow ring that goes to the edge.

This Fungus well seasoned and then broiled, has the exact flavour of a roasted Muscle. Its prime time is September, and it is to be found in high dry woods.

5 AGARICUS

5 AGARICUS cinnamomeus. *Brown Mushbroom.* *Lin. Sp. pl.* 1642.

The *Brown Mushbroom* has a cap the colour of fresh-tanned hides. At first it is hemispherical, firm, even, and fleshy, with mostly a small rising in the centre; but when old it is quite flat, and then somewhat resembles the *lactifluus*, except that it is not milky. The gills are of a yellowish brown, not very distant from each other, bent like a knee at the pillar, and have a short one or two run from the edge of the cap between each. The pillar is near the length of a finger, firm, rather thick, brown at the base, of a fordid yellow upward, and when cut transversely, of a fine white grain. The cap in different plants is from two to five inches broad.

The whole plant has a pleasant smell, and when broiled gives a good flavour. It is found in woods, in September and October.

6 AGARICUS violaceus. *Violet Mushbroom.* *Lin. Sp. pl.* 1641.

Fungus esculentus bulbosus dilutè purpureus. *Mich. Gen.* 149. t. 49. f. 1.

The cap of the *Violet Mushbroom*, when first expanded, is smooth, hemispherical, the main surface of a livid colour, but towards the margin it is of a better blue. When full grown or old it becomes corrugated, and of a rusty brown. The gills of

a young plant are of a beautiful violet colour, and regularly placed. The pillar is of the colour of the gills, short, of a conical form, but swelled at the base into a sort of bulb. Its upper part is surrounded with an iron-coloured wool, which, in a plant just expanding, stretches cross to the edge of the cap like a web.

This requires much broiling, but when sufficiently done and seasoned, it is as delicious as an Oyster. It is found in woods in October, and I have met with plants from two to six inches broad. Hudson's *bulbosus* is only a small variation of this plant.

There are some other species of Agarics that are frequently eaten by the country people; and it is probable the greatest part of those with firm fleshy caps might be eaten with safety, provided they were chosen from dry grounds. It is well known that soil and situation have a great influence upon the properties of plants; and these being of a singular nature, and absolutely between that of an animal and vegetable, may be more powerfully affected than a compleat species of either, by reason they have neither leaves nor branches to carry off the noxious damps and vapours of a stagnant soil, as a perfect vegetable has; nor have they any gross excremental discharges, like those of a living animal. The gills no doubt do exhale some of their superfluous moisture, but their situation

situation is such, that any thick steam from the earth may lodge in them, and by clogging their excretory ducts, render the plants morbid. Thus they soon run into a state of putrefaction, and become a prey to worms, flies, and other insects. The common Mushroom, which is in general esteem, (though we have several others better) is not safely eaten, when produced upon a moist soil. An acquaintance of mine, who is exceeding fond of broiled flaps, as he calls them, was taken very ill upon eating some he gathered off a wet cloggy land. He became very sick, with his stomach much distended, which induced him to think he was absolutely poisoned; but luckily for him, he had some fat mutton broth in the house, of which he drank plentifully, and his stomach disgorging, he recovered. This accident, however, did not discourage him from making free with his beloved dish in future, but he has been careful ever since to gather his Mushrooms (and no one knows Mushrooms better) on dry soils; being himself convinced, that the pernicious quality of his flaps, was entirely owing to the place they grew upon.

From this it is evident, that those who gather Mushrooms for sale, should have particular regard to the lands they collect them from, especially if they know they are to be broiled; but if they be intended for *Catchup*,

perhaps they may be less cautious, as the salt and spices, with which the juice is boiled, may correct any evil disposition in the plants. But even in this case, I can from my own experience aver, that *Catchup* made of Mushrooms taken from a dry soil, has a more aromatic and pleasant flavour, than that which is made of those taken from a moist one, and it will always keep a great deal better.

7 LYCOPERDON tuber. *The Truffle*,
Lin. Sp. pl. 1653.

Tuber brumale, pulpa obscura odorata.
Mich. Gen. 221. *t.* 164.

The *Truffle* is a solid Fungus, of a globular figure, and grows under the surface of the ground, so as to be totally hidden. It has a rough blackish coat, and is destitute of fibres. The manner of its propagation is entirely unknown. Cooks are well acquainted with its use and qualities. It is found in woods and pastures in some parts of Kent, but is not very common in England. In France and Spain *Truffles* are very frequent, and grow to a much larger size than they do here. In these places the peasants find it worth their while to search for them, and they train up dogs and swine for this purpose, who after they have been inured to the smell, by their masters frequently placing some in their way, will readily

readily scrape them up as they ramble the fields and woods.

8 PHALLUS esculentus. *The Morel.*
Lin. Sp. pl. 1648.

Boletus capite tereti reticulato. Hall.
Hist. 2247.

The *Morel* is a Fungus of a very singular construction, having an oval, or rather conical head, full of irregular pits or cells, which in the larger plants are big enough to receive the tip of a finger. The centre of the base is fastened to a thick stalk, about the length of the head, and irregularly fluted near the root. The whole plant at first is nearly of a buff colour, but when old it becomes brown. It grows on moist banks, and wet pastures, and springs up in May. It is used in the same manner as the Truffle for gravies, but gives an inferior flavour.

A P P E N D I X.

THE following plant could not with propriety come under any of the general divisions of the foregoing work.

HIBISCUS esculentus, Fig-leaved Okra, Lin. Sp. pl. 980.

Alcea maxima, malvæ roseæ folio, fructu decagono recto crassiore brevioris esculento, Browne's Jam. 284. n. 3.

This is an annual, and a native of both the Indies. It sends up a spongy stalk rather more than a yard high, which branches towards the top, and is furnished with hand-shaped leaves, having five lobes. The flowers are produced at the divisions of the stalk; each has a double calyx, and the under one is torn on one side. The petals are heart-shaped, are five in number, of a sulphur colour, are joined at their base, and have dark purple bottoms. The stamina are many, and are united into a column below, but expand near the top. The germen is roundish, and turns to a thick capsule, three or four inches long, mostly standing erect, and having five cells, containing kidney-shaped seeds.

The inhabitants of the Indies boil these pods

pods in their soups. They contain a viscous acid juice, which communicates a thickness, and also a pleasant flavour.

The generic characters of the following two species have not yet been perfectly settled.

GINKGO. *Maiden-hair Tree.*

Arbor nucifera, folio adiantino. *Kämpf.*
Amœn. Exot. 811.

This is a native of Japan, where it is known by the names *Ginan* and *Itso*. The body is covered with an ash-coloured bark, and a full-grown tree is as large as a Walnut. The wood is brittle, having a soft spongy pith running through it. The leaves are large, and expand in the form of a Maiden-hair leaf. They are narrow at the base, unequally divided upward, have no nerves or fibres, both surfaces being alike. The upper side of the footstalk is flat, and runs into the substance of the leaf. The flowers are produced in long catkins, at the bosoms of the leaves of the young twigs, and are succeeded by plums, nearly of the size and colour of the Damask Plum, each containing a whitish, brittle stone, resembling that of the Apricot, but larger, enclosing a white kernel, having much the flavour of an Almond.

In China and Japan these kernels always make part of the desert at all public feasts and

and entertainments. They are said to promote digestion, and to cleanse the stomach and bowels.

BREAD FRUIT-TREE.

This grows in all the Ladrone Islands in the South Sea, as is mentioned by Capt. Dampier and Lord Anson, and also at Otaheite, by Capt. Cooke, and is thus described:

The *Bread Fruit* grows on a tree about the size of a middling Oak. Its leaves are a foot and half long, of an oblong figure, deeply sinuated like those of the Fig-tree, which they resemble in consistence and colour, and in exuding a milky juice upon being broken. The fruit is about the size of a child's head, and the surface is reticulated, not much unlike a Truffle. It is covered with a thin skin, and has a core about the size of a small knife. The edible part is between the skin and the core; it is as white as snow, and somewhat of the consistence of new bread. It must be roasted before it is eaten, being first divided into three or four parts. Its taste is insipid, with a slight sweetness, nearly like that of wheaten bread, mixed with Jerusalem Artichoke.

This Fruit is the constant food of the inhabitants all the year, it being in season eight months; and in order to supply the remaining

remaining four, they have a method of sweating the unripe fruit, by laying them in heaps in a hole made in the floor of the house (which hole they neatly line with grafs) and covering them with leaves, and a layer of stones, by which they ferment and become four, and will then keep for several months. This mass is called *Mabie*, and as it is wanted, it is taken out of the hole, made into balls, wrapped in leaves, and baked.



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N. B. *The Author not having an opportunity of seeing the sheets, till after they were worked off, finds it necessary to correct the following*

E R R A T A.

Page 17, l. 12, for sparedly, r. sparfedly.

— 18, l. 28, take away the comma between rats and granaries.

— 35, l. 4, for cut, r. eat.

— 46, l. 8, for quantities, r. qualities.

— 99, l. 27, and

— 115, l. 2, for spikes, r. racemi.

— 101, l. 21, for hirsutia, r. hirsutie.

— 182, l. 22, and where else the expression occurs,
for these fruits, r. the fruit.

— 189, l. 9, for apples, r. berries.

— 193, l. 26, for plums, r. berries.

— 308, l. 17, for rind, r. rinded.

— 377, l. 1, for pods, r. capsules.

— ibid. l. 12, for walnut, r. walnut-tree.

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